ABSTRACT OF A

Lecture

ON

THE TREATMENT OF PHTHISIS BY PROFESSOR KOCH'S METHOD.

Delivered to the Post-graduate Class at the Brompton Hospital,

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GENTLEMEN,—Koch's treatment of phthisis has been selected for my present lecture partly because a considerable number of cases have been for some time under this treatment in the hospital, and some estimate may therefore be formed of its specific action in consumption, and partly because it is a subject which lends itself specially to clinical demonstration; and, as the ten cases under my charge have been carefully recorded with a view of testing the method, you will be able, after examining the patients, to form your own judgment on the matter. Moreover, a visit to Berlin[1] last December enabled me to investigate a large number of cases under the Koch treatment in the German hospitals, and specially those in which it had been carried out under the personal supervision of Professor Koch himself, and to take note of any necessary hints or precautions. In his further communication Professor Koch informs us that tuberculin is a glycerine extract of pure cultivation of tubercle bacilli in which the parasites have been killed. His general conclusions may thus be summed up:—1. That the hypodermic injection of tuberculin in tuberculous patients is followed in a few hours by a reaction, characterised by rigors, fever, pain in limbs, languor and great fatigue, often vomiting, increase of cough and expectoration, and occasionally by an eruption like measles, the reaction lasting from twelve to fifteen hours, and the patient returning at the close of it to his ordinary state. 2. That the tuberculin penetrates to, and causes necrosis of, the tubercular tissue wherever situated in the body, but does not necessarily destroy the tubercle bacilli themselves, and that its penetrative action is extremely valuable for diagnostic purposes, but that it has no effect on necrotic cheesy masses. 3. That patients in the first stage of phthisis, after being under treatment for from four to six weeks, were free from every symptom of disease, and might be pronounced cured. 4. That patients with cavities not too highly developed improved rapidly and were almost cured. 5. That only in those whose lungs contained many large cavities could no improvement be found objectively, but even in these the expectoration diminished, and there was subjective improvement. Professor Koch concludes that he is led to suppose that phthisis in the beginning can be cured with certainty by this remedy, though he admits that the cure cannot be considered lasting until longer time has elapsed. The clinical evidence as to the action of Koch's remedy in phthisis has been abundant. Professors Gerhardt, Leyden, Senator, and Ewald have spoken, but not on the whole favourably—nay, in many cases the reverse; but the most important evidence which has as yet been furnished is the pathological, supplied in sundry and valuable communications of Professor Virchow, the greatest living pathologist, who examined sixteen phthisical patients, who had died at the Charité Hospital whilst undergoing the Koch treatment. The results appear to be: (1) Colossal hyperæmia of the pia mater and brain substance, with tubercular meningitis, in a boy aged two years and nine months, after four injections; (2) intense reddening of the granular layers on the surface of old phthisical cavities and swelling of lymphatic glands; (3) caseous pneumonia, induced, as appeared in five out of sixteen necropsies, in one case after six injections; (4) a characteristic form of catarrhal pneumonia in seven cases, termed by Virchow "injection catarrhal pneumonia"; (5) eruption of miliary tubercles. He also noted that there was no necrosis of individual tubercles throughout the body, but they generally remained unaffected. Our own series of patients included cases of early tuberculisation, softening, and limited cavity, in which the injections have been carried out for many weeks, and in some cases for two months and a half, which can only be given here in barest abstract.

CASE 1.—S. S——, male aged eighteen. Cough, expectoration, and loss of flesh two years. Hæmoptysis half a pint a week ago. Physical signs show tubercular consolidation of the upper third of the left lung. Sputum contains a few tubercle bacilli, but no lung tissue. Injection of tuberculin was begun Dec. 9th with 0·001 cc. doses, which was gradually raised to 1 cc., reaction commencing after 0·005 cc. After fifteen injections the number of tubercle bacilli, which had been large, diminished, and lung tissue appeared in the sputum. Physical signs showed the formation of a cavity in the upper left lobe. The patient had thirty-three injections in two months and a half, and ceased to react during the last fourteen days. He gained 10 lb. and generally improved. Cough and expectoration less, latter still containing tubercle bacilli. Well-marked cavity in upper left lobe.

CASE 2.—W. S——, male aged twenty-six. Cough, loss of voice and flesh six months. Hæmoptysis two pints five months ago. Tubercular consolidation of upper right lobe, with commencing softening; old tubercular ulcer of right vocal cord. Sputum contains tubercle bacilli and lung tissue. Injections were begun Jan. 25th, 1891, with 0·001 cc., and this being followed by very marked reaction the dose was very slowly increased to 0·003 cc., and then diminished as the reaction continued. The patient had twelve injections, and lost two pounds and a half in weight. Cough and expectoration lessened; tubercle bacilli remained present, and lung tissue was no longer detected. Physical signs showed a well-marked cavity in the upper right lobe, with a spread of tuberculisation in the middle lobe.

CASE 3.—F. T——, male aged thirty-two. Incipient phthisis. Hæmoptysis one pint two years ago, followed by cough and loss of flesh. On admission to hospital no signs were present, but later on crepitation was heard above the right scapula, and the expectoration was found to contain tubercle bacilli. This patient had eleven injections and reacted strongly, and lost a pound and three-quarters in weight. The sputum always contained tubercle bacilli. The physical signs showed considerable spread of the lung tuberculosis and the formation of a cavity at the apex.

CASE 4.—W. W——, male aged thirty-four. Cough, expectoration, loss of flesh, and occasional hæmoptysis for four months; tuberculisation of left upper lobe; expectoration contained a number of tubercle bacilli. Injections commenced Dec. 9th, 1890, with 0·001 cc., and were gradually increased to 0·1 cc. After the second 0·002 cc. he reacted slightly, and the bacilli increased largely in the sputum. After eight injections a cavity was detected in the left lung, and later on lung tissue was found to be largely present, and tubercle bacilli slowly disappeared from the expectoration. The patient had altogether twenty-nine injections, and appeared much improved since the formation of the cavity. He gained a pound in weight; cough and expectoration nearly ceased, and lung tissue disappeared again from the sputum, tubercle bacilli being only occasionally found.

CASE 5.—Nathan R——, aged twenty-three. Cough, night sweats, and wasting for several years; worse lately. Extensive tuberculisation of left lung, with cavity at apex; laryngeal tuberculosis; sputum contains numerous tubercle bacilli. Injections were begun on Dec. 11th, 1890, and patient reacted strongly after the first one, and there was increase in the physical signs. The reactions continued up to the fourth injection, after which the dose was gradually increased to 0·1 cc., and well borne. He had in all thirty-one injections in two months and a half, and gained 3½ lb. in weight, and improved generally. The sputum contained lung tissue in considerable quantity, and tubercle bacilli. The cavity increased in size at first, and at a later date showed signs of contraction, the chest wall becoming flattened and the heart's impulse raised.

CASE 6.—John H——, aged forty-five. Cough, expectoration, loss of flesh for ten months, and slight aphonia. Tertiary syphilis twenty years ago. Right vocal cord thickened. Cavity in left upper lobe. Sputum contains abundant tubercle bacilli, but no lung tissue. He was injected with 0·001 cc., and had slight headache without pyrexia, though the pulse was quickened. He, however, reacted completely after an injection of 0·002 cc. Tolerance

[1] Brit. Med. Jour., Dec. 20th, 1890.

was soon established, and he had thirty-five injections in all, the dose being gradually increased to 0·08 cc., and as this was always followed by slight reaction more was not given. The expectoration for a long period contained abundant lung tissue, but latterly this disappeared. There were always tubercle bacilli. The patient improved slightly in general health, and gained a little flesh. The cavity at first considerably enlarged, but towards the end of his stay it began to contract, the chest becoming flattened and the heart's impulse drawn up.

CASE 7.—Thomas D——, aged thirty-seven. Cough, hæmoptysis, loss of flesh, two years; scattered tuberculisation of right lung; cavity in upper lobe; sputum contains a few tubercle bacilli. He was injected, but showed no reaction until the fifth (0·005 cc.), when a moderate reaction occurred, with large increase of tubercle bacilli. Later on lung tissue appeared in the sputum. All reaction then ceased, and the dose was gradually increased to 0·1 cc. He had altogether twenty-nine injections in two months, and improved in appearance, with slight gain of weight. Cough was moderate, expectoration copious, always containing abundant tubercle bacilli, but eventually no lung tissue. A cavity in the right lung became considerably enlarged, and fresh tuberculosis was detected in the dorso-axillary region, doubtless from reinhalation of secretion from the cavity.

CASE 8.—W. B——, male aged twenty-three. Cough, expectoration, and loss of flesh fifteen months following pneumonia. Hæmoptysis (three pints) on several occasions. Cavity in upper right lung. Sputum contains abundant tubercle bacilli with some lung tissue. The patient had altogether seventeen injections, but owing to the strong reactions, chiefly in the form of pyrexia and headache, the dose was never increased beyond 0·002 cc., and generally was 0·001 cc. Cough and expectoration increased, the latter generally containing both tubercle bacilli and lung tissue; his breath became shorter, the injection was often followed by shivering and difficulty of keeping warm. The cavity in the right lung extended, and fresh tuberculisation was detected in the lower right chest; the injections were then stopped, and the patient put on the ordinary treatment of the hospital, upon which he improved, gaining weight and losing the pyrexia.

CASE 9.—William P——, aged forty-seven. Cough, expectoration, and wasting, and night sweats for one year, following the influenza. Cavity in left lung, with tuberculisation around. Some tuberculisation of upper right lobe, slight afternoon pyrexia. Had altogether eleven injections of 0·001 cc.; complained first of headache and then of shivering after each injection, though the temperature rarely exceeded 100·5° F. The patient became decidedly worse and the injections were discontinued. The sputum always contained abundant tubercle bacilli and some lung tissue. The left upper lobe became rapidly excavated and there was extension of tuberculisation in the upper right lung.

CASE 10.—George D——, aged twenty-one. Cough, expectoration, with night sweats, wasting, and short breath, after chill two months ago. Tubercular consolidation of the right apex; sputum contains no tubercle bacilli. He had two injections (0·001 cc. and 0·003 cc.) without reaction, but after the third of 0·005 cc. there was marked reaction, and lung tissue appeared in the sputum. He had in all, fourteen injections, the last seven being without reaction. Cough slight, expectoration diminished and contained no lung tissue or tubercle bacilli; physical signs of right apex unchanged. Some injections were followed by urticaria. Patient improved slightly, but more so after injections were suspended.

In addition to the above hospital cases I have used the treatment on some private patients, four of whom were phthisical, and I will give a brief summary of them. The first was a young lady aged twenty-five, who had lost her mother and two sisters from phthisis, and had been herself affected with consumption for about four years, during which time I had seen her several times. In December, 1890, she was brought up to town by her relatives to try the Koch treatment, and when I examined her with Mr. Kaye Smith I found her greatly wasted, with pyrexia, severe cough, and night sweats. The expectoration was purulent, about two ounces in quantity, and contained abundant tubercle bacilli. Cavities were detected in both upper lobes, being most distinct on the left chest, and tuberculisation was noted at the base of the left lung. There was also laryngeal disease. On Dec. 21st the treatment was commenced, and in the course of eight days three injections of one milligramme each were given. After each there was a well-marked reaction, shown in rise of pulse, respiration, and temperature, the latter reaching 103° F. on each occasion. The chief result was the large increase in expectoration, from 2 oz. to 6½ oz. and 7¾ oz., which contained after each injection a large amount of lung tissue, and tubercle bacilli were abundant as before. The patient was so exhausted after the third injection (though the smallest dose was administered), and the fever kept up for so many days, that the treatment was discontinued, and she returned very much to her former condition, with one exception—viz., that the physical signs showed the existence of a fresh cavity at the base of the right lung in addition to the old apical ones, and that the sputum contained on several examinations abundant lung tissue. The injections seemed to have no effect on the larynx, and the formation of the basic cavity was accompanied by improvement in the cough and expectoration.

The second was the case of a young lady aged twenty-three, whom I saw with Dr. Montgomery of Maidenhead in September, 1890, with a history of nine months' phthisis, the disease having advanced rather rapidly lately, and there being softening of both apices. Under cod-liver oil and maltine and various tonics she showed no improvement, but lost weight; distinct cavities formed at each apex, and at her father's and medical adviser's wish I consented to cautiously try the Koch treatment, which was commenced on Dec. 18th. The temperature, pulse, and respiration showed some degree of pyrexia, and the sputum contained abundant tubercle bacilli, but no lung tissue previous to the treatment. The patient reacted decidedly after the first injection of 0·001 cc. in December, the temperature rising to 102·2°, and the pulse to 110, the reaction subsiding in ten hours. They were proceeded with three or four times a week, and as they were tolerated well the dose was gradually increased, reaching 0·065 cc. on the eighteenth injection. At this date (Jan. 5th, 1891) the patient's temperature, during the reaction only, reached 100·8 F., the pulse was 96, and the respiration was 18. The cough was troublesome, the expectoration was abundant, and contained a large amount of lung tissue and swarms of tubercle bacilli. The physical signs showed, in addition to the old cavities, that a new one had formed in the right lung, which gave rise to loud cavernous sounds in the lower part of the interscapular region. The patient reported herself better, but she had lost 4lb. in weight. Two days later, after the twentieth injection of 0·5 cc., a smaller one than some proceeding ones, she had a rigor, and the temperature rose to 104·2°, the pulse and respiration became rapid, and the patient was slightly cyanosed. Crepitation was detected in the lower lobe of the left lung, a region hitherto free from abnormal signs. The injections were at once stopped, and stimulants and expectorants and antipyretics given, with the result that the unfavourable symptoms, including the pyrexia, slowly subsided, and after an interval of three weeks the patient was able to get up, and to return home on Feb. 4th. Her condition then was: she had lost flesh considerably, cough was moderate, expectoration less, but contained lung tissue and a large number of tubercle bacilli. The physical signs showed: (1) great dryness and absence of râles throughout the lungs; (2) the presence in the right lung, in addition to the original apical ones, of two cavities, one the interscapular one mentioned above, and another freshly formed in the axillary region, probably through reinhalation of bacilli-laden secretion from the apical cavity; (3) there was contraction proceeding of the left apical cavity, and flattening of the chest walls, with displacement of the heart and neighbouring organs; also (4) fresh tuberculisation at the base of the left lung. Here we can scarcely come to any other conclusion than that tuberculin caused breaking down of old tubercle in the right lung and the formation of a cavity in the upper part of the lower lobe. The formation of the dorso-axillary cavity may or may not be attributable to this cause, but the tuberculisation of the left lower lobe, accompanied as it was by marked constitutional symptoms, and following immediately after the last injection, can hardly be attributed to any other cause. We must conclude that the effects of the tuberculin injections were disastrous in this case.

A third case was a young lady aged fifteen, whom I

saw with Dr. Archer of Avenue-road, first on Dec. 15th. She was of Hindoo extraction, and of very studious and sedentary habits, suffering from incipient phthisis. Cough and expectoration had persisted for six weeks, with some loss of flesh, and dulness and crepitation were present above the right scapula; the expectoration contained tubercle bacilli in small numbers, but no lung tissue. The case seemed favourable, and at the urgent solicitation of her relatives I consented to try the Koch treatment, and injections were commenced on Jan. 23rd, 1891, and carried out by Dr. Archer under my occasional supervision. After the first dose of 0·001 cc. she reacted slightly, the temperature reaching 100° F., and pulse and respiration being quickened. She had twenty-two injections altogether, and as she always reacted with a small dose, it was continued, and never exceeded 0·002 cc., and generally 0·0015 cc. was given. The cough increased, the expectoration became profuse, and contained abundant tubercle bacilli and quantities of lung tissue, and the physical signs showed evidence of cavity formation at the left apex, and, moreover, of its considerable extension; so that before the close of the treatment the whole upper and part of the middle lobes of the right lung were excavated. The reaction temperature, instead of diminishing after a number of injections, ran up constantly to 101°. and 102° F. After the twenty-second injection, the same solution of lymph being used all through, she suffered pain at the base of the left lung, and some pleuritic friction was detected. The temperature rose to 102·4° F., the pulse was 100, and the respiration 20. The injections were discontinued, but the pyrexia was persistent for weeks afterwards, though otherwise the patient seemed fairly well. Here the injections caused rapid excavation of the right lung, and judging by the extension of the physical signs in the right lung, by the increase in the number of bacilli, and by the persistent fever after the injections—judging also by the pleurisy in the left lung, evoked apparently by the last injection—it would appear that the treatment had given rise to fresh lung tuberculisation in the manner described by Virchow. This was in every way a promising case, and quite within the category of Koch's curable cases, but the result was most unfavourable.

A further case was that of a married woman, aged thirty-three, a schoolmistress, sent to me by Dr. Pocock of North Kensington, with one year's history of phthisis, preceded by bronchitis for several winters. Cough was troublesome, and expectoration moderate in amount and nummular, containing a fair amount of tubercle bacilli. The physical signs were—Right: Crepitation above clavicle and scapula. Left: Dulness and crepitation to third rib cavernous sounds in first space and above clavicle and scapula.

The first injection of 0·001 cc. was given on Jan. 21st, 1891, and was followed by great pain in the upper right chest, headache, and langour, but by no rise of temperature. The second injection of 0·002 cc. raised the temperature to 100°, and caused quickening of pulse and respiration, but the third (same amount) caused a marked reaction five hours after. The temperature rose to 101·6°, and was followed next day by a similar rise, pulse and respiration being both quickened. The patient complained of headache, shivering, pains in left chest and in back and legs, and the reaction lasted three days. The area of crepitation increased in the right lung; the expectoration contained more tubercle bacilli and a certain amount of lung tissue. Five days later cavernous sounds were heard on the right side in the first interspace, and more lung tissue was found in the sputum. The injections were continued and steadily increased in amount, and we reached the fourteenth with a dose of 0·013 cc. without further reaction. On the dose being augmented to 0·017 cc., the temperature rose to 100°, but it was soon tolerated, and no further reaction occurred till the nineteenth injection of 0·02 cc, when there was a rise to 102°. After this injections of 0·016 cc. and 0·017 cc., and eventually of 0·02 cc., were tolerated without reaction, and the patient has had altogether twenty-two injections, and neither lost nor gained in weight. Cough lessened and expectoration diminished. The bacilli and lung tissue decreased. The physical signs showed well-marked cavity at each apex, but disappearance of nearly all surroundng crepitation and râles. The patient's subjective condition was improved, and she reported herself able to do her work more easily. During the whole treatment she followed her occupation of schoolmistress, except on the occasion when the reaction lasted three days. This is a more satisfactory case than the preceding, the injections having caused, as usual, fresh excavation; but this process, as in Cases 1 and 4 of the hospital cases, was followed by general and local improvement.

Let us now summarise the results of the treatment in these fourteen patients. We must bear in mind that five were first stage or tuberculisation cases; in one softening had commenced, and the rest were patients with cavities, five with single cavities, and three with double cavities, though of limited extent.

General condition.—Six improved, of whom three improved greatly, seven deteriorated, and one remained in a stationary condition.

Of twelve patients whose weights were recorded, four gained in weight, the greatest gain being 10 lb., five lost, and three were stationary. Loss of weight is almost invariable if there is much reaction, and we must bear in mind that all these patients reacted at one period or another of the treatment.

Influence on pulse, respiration, and temperature.—As a rule, during a reaction there was a simultaneous rise of pulse, respiration, and temperature, and a corresponding fall to the normal at the close of it, but this was not invariable, for in some of the slighter reactions there was a rise of pulse and respiration, accompanied by headache and languor, without any elevation of temperature. In the pyrexial cases, such as Case 6, and in two of the private patients, the effect of the tuberculin was to intensify the pyrexia, raising the temperature by several degrees. In some of these cases, where fresh tubercular and pneumonic changes followed the injections, the pyrexia remained more or less persistent for weeks. Where, however, extensive excavation took place, there was a tendency to subsidence of fever. The patients described as improved all stated that they could breathe more easily after the treatment. The remedy seemed to have no permanent effect on pulse rate or respiration rate.

Digestive organs.—The patients, as a rule, lost appetite, and in two cases diarrhœa came on, but there was no suspicion of its being due to intestinal ulceration.

Skin and kidneys.—No special effect was noticed on the kidneys, although some observers have noted the presence of albumen in the urine after injections. In two patients affected with night sweats these occurred during the reactions.

Blood.—The blood was carefully examined in two patients during the reaction for tubercle bacilli, but with negative result.

Cough and expectoration.—Cough, as a rule, increased after the first injections, and occasionally there was slight aphonia; after a while cough diminished, unless the lung condition showed advance of the disease. Expectoration invariably increased in quantity, in some cases threefold, was generally purulent, and contained often caseous material visible to the naked eye. In the hospital the sputum was examined for tubercle bacilli by our able assistant medical officer, Dr. Allden, before the treatment commenced, and examinations were carried on every other day during its continuance. All observers of any experience have come to the conclusion that no great stress can be laid on the variations in the number of tubercle bacilli in the sputum, and that they are often dependent simply on the quantity of expectoration; so that their increase does not always mean increase of disease, especially where cavities exist, nor does their diminution mean arrest of disease.

Professor Koch lays great stress on their diminution under the treatment, stating that it takes place when the expectoration begins to present a mucous appearance. Out of thirteen cases in which they were detected they diminished in one case, increased at first and diminished afterwards in two cases, remained abundant throughout in four, increased and then diminished in two, and increased in six. In many cases the injections appeared to be immediately followed by increase in the number of tubercle bacillus.

Lung tissue.—The appearance of lung tissue in the sputum seemed to be the most direct result of the injections. It was found in all but one case at some time or other of the treatment, and generally after the first few injections. In the favourable cases it disappeared later, but in the unfavourable cases it was detected throughout the treatment. It was generally abundant, and presented not only the

h ɔklets, but often almost complete sections of pulmonary alveoli. It is a curious feature in the clinical records of the Berlin consumption cases under the Koch treatment in the hospitals that, while the observations on the numbers of tubercle bacilli are most carefully recorded, little or no mention is made of the presence or absence of lung tissue in the sputum, assuredly a most important item in determining the progress of lung change.

State of the lung as evidenced by physical signs. — Among the five tuberculisation cases, cavities formed in four, and in three extension of tuberculisation took place. In the case of softening, a cavity formed rapidly, apparently with great relief to the patient. In the other eight the old cavities either extended or fresh cavities formed, in many cases in regions not commonly the seat of cavities, such as the right middle lobe. The conversion of an apical tubercular mass into a cavity was generally a rapid process, taking place often in three or four weeks, as in Cases 1 and 4 and the third private case. The formation of secondary cavities was also rapid, as occurred in the first and second of the private patients The extension of old cavities was well marked in two cases. With regard, therefore, to excavation, we must bear in mind that it either took place, or extended, in no less than thirteen out of fourteen cases. In three of the patients contraction of the cavities was noted to be proceeding at the time of our last record, even though extension had originally taken place. As to spread of tuberculisation, it took place in six cases, and generally proceeded by continuity, but in two cases infection of the lower lobe appears to have commenced by re-inhalation of cavity secretion. In one case there was tubercular spread without excavation.

Larynx.—Three of the patients had tuberculosis of the larynx, but curiously the lesions appear to have been unaffected by the injections.

And now it will be seen that the evidence of the cases narrated does not confirm Professor Koch's conclusions, but like those of Professor Virchow, Ewald, and Dr. C. J. Nixon,[2] they point out some of the difficulties and dangers of the treatment. There is no doubt about the penetrative action of tuberculin, and possibly if something were combined with it this remarkable power of selecting tubercle might be turned to account; as it stands at present in phthisis, its effect is to convert tuberculous masses, which may be perfectly quiescent, into cavities, and the process is by no means always a safe one. As regards the condition of our patients after treatment, all we can say is that they fared worse than the ordinary run of similar consumptives, and, moreover, that several of them improved considerably when transferred from Koch's system to the ordinary treatment of the hospital. There may be, and indeed there are, cases of phthisis in which the promotion of excavation is desirable, and for such the Koch method is indicated; but they are, I take it, exceedingly rare, and for the great mass of consumptive patients it is certainly not indicated. I close this lecture by the following conclusions: (1) Professor Koch's fluid has a strong affinity for tubercular material, which it appears to penetrate, and to produce inflammatory changes in and around all parts of the body; (2) that the changes in the lung set up seem to be partly necrotic—i.e., destruction of tissue,—but partly infective, producing fresh tubercles; (3) that the effect on tubercular consolidations is to cause their softening and excavation, and subsequent removal by expectoration or absorption; that this process of elimination of tubercle by excavation leads to extensive destruction of lung tissue and to the formation of a large number of cavities in lungs formerly the seat of quiescent tubercle, which may give rise to septic infection; (4) that this process is also at times accompanied by fresh tuberculosis in the neighbourhood either by infection of fresh tracts through tubercle bacilli passing down the bronchi, or by their penetrating into neighbouring alveoli; (5) that, on the other hand, the removal of the tubercular masses by excavation is occasionally followed by fibrotic changes in the lung, which cause contraction of the cavities thus formed, and in this way conduce to arrest of the disease, but that such favourable changes cannot be predicted beforehand; (6) that there is no proof of the possibility of the cure of phthisis by this method within the periods mentioned by Professor Koch, and that, as at present administered, its results are less favourable than those of the ordinary methods in use.

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CAN INJURY PRODUCE LOBAR PNEUMONIA?

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(Concluded from page 1369.)

CASE 5. *Penetrating wound involving lung structure.*—L. D——, a young man, was stabbed in the left side of the chest. He fell at once in a state of syncope, but there was no external hæmorrhage, only transitory dyspnœa and hæmoptysis. The knife had entered the third intercostal space about one inch and a half outside the sternum. There was no pleural effusion, and his pulse was of good character. The wound was closed antiseptically. Twenty-four hours after the injury he complained of a chilly feeling, had a frequent pulse (110), temperature 101°, and slight hæmoptysis, but no dyspnœa. On auscultation there were heard loud bronchitic râles, partly perhaps from hæmorrhage; also some fine crepitant râles at the left summit, loudest in front. On the day following the hæmorrhage had entirely ceased, but there were dry cough, rusty sputum, and feverishness. Temperature 101°; pulse 100; respiration 30 Crepitant râles over superior lobe of lung, but without marked dulness. For the following three days his condition remained unchanged, when on the sixth day from the injury the temperature began to fall, and by the tenth the fever had completely disappeared. The lung conditions cleared up gradually, and he made a good recovery.

Direct enough one might think the evidence in these cases as to the relationship between injury and pneumonia, and so it appears; but it is only by a careful consideration of their leading features that we can come to anything like a conclusion as to the nature of the lung changes. In connexion with the first case, a leading thought must be, What light, if any, does it throw upon the production of pneumonia by pulmonary concussion, and is this really a possible result of such a traumatism? My own impression, and this I incline to extend to the large majority of cases in which the association occurs, is that in this instance the lung inflammation was *not* the direct result of the injury—indeed, as the accident happened it could not well be,—but was probably the outcome of the condition of an otherwise sound lung having, through excess of work, become more than ordinarily congested, and of the sanitary surroundings of the patient, which, unfortunately, were not of the best. His left side was terribly bruised; its movements were for a time languid and imperfect. The comparative feebleness of the vesicular murmur and the dyspnœa were evidences of imperfect respiration and retarded circulation on the injured side; and as of necessity the same amount of blood was passing through the right heart, and the same demands were being made for its chemical transformation, it could not fail that the sound lung should be called upon for extra labour, and that in endeavouring to perform this its bloodvessels should become overcharged. This condition of hyperæmia is one especially favourable for the development of those organisms in which I believe lobar pneumonia ordinarily has its origin; and in this way I am inclined to think there was brought about, in the only case of its kind I have known, a true "pneumonic fever," the apparent outcome of shock to the chest walls. My experience enables me to confirm the conclusions of Mr. Le Gros Clark, that serious functional derangement without organic lesion may result from contusion or concussion of the chest, and that such trouble generally subsides spontaneously.

Some of the cases reported as cases of pneumonia following blows on the chest seem to me to have other sources of origin, for the kind of blow described is not one which in the naturally elastic condition of chest wall and lung substance is likely to produce an emphatic "commotion." I take it that when such a result does follow a trivial injury in some constitutional predisposition or chronic functional disturbance must be found the starting point of the pneumonia, and not in the sequence of a traumatism. It has been argued that in our knowledge of the effects of head injuries we readily find an expectation of such results, but surgical experience proves that the after effects of contusion of the skull are usually found in affections of the meninges, and not of the encephalon itself. Pleurisy, which in dealing with such an argument we may bracket

with meningitis, is, we know, a not infrequent sequel of blows upon the thoracic walls, and although pneumonia in its traumatic form does unquestionably occur in such circumstances, it is not only uncommon, but is the outcome usually of such violence as writes its record immediately and profoundly. I have been astonished, in witnessing the effects of very severe blows, received especially over the root of the lung, of the urgent and alarming symptoms and anomalous physical signs they produced, and the manner in which, within a few days, and without any marked evidence of harmful reaction, their effects have completely passed away. I well remember a man under my care in the Cumberland Infirmary who, while in a stooping position, received from the end of a heavy plank, which had fallen from some height, a blow between the body of the left scapula and the spine. He was admitted in a condition of most urgent dyspnœa; the left chest moved in a very impeded way, and although percussion dulness was normal, there was an almost entire absence of vesicular murmur; while on the right the respiration was intensely puerile. On the following day the percussion note on the left was not clear, as if from some pulmonary congestion, but there was now audible distinct vesicular murmur, and the dyspnœa was somewhat less. Under means employed to reduce the fulness of the pulmonary circulation his condition was relieved, and the respiration on the injured side was at the end of three days so fully re-established that he was practically well. His temperature, subnormal for the first twenty-four hours, never rose beyond a normal point. This, however, is not always the history; and that a lung—remaining as this man's left lung did for nearly three days in a state of paresis, with its nerve force more or less inhibited and its bloodvessels probably in a state of dilatation—should become mechanically the seat of an active congestion, or, pathologically, the nursery of an organism, is readily understood, but such an event is assuredly not the rule. A fact, I remember in this connexion, and of which I made a note, was that, during the War of the Rebellion, there passed under treatment 11,549 flesh wounds inflicted by gunshot, of which in the course of its last year there were 3970 of the thoracic parietes. Of the grand total, 131 died, and among the recorded causes of death only six were returned as due to pneumonia. All surgeons recognise the contusing power of gunshot injury and its often grave secondary results, and it seems strange that if pneumonia be a frequent sequel of injuries to the chest wall it should not figure more prominently in such a list, drawn in war time, with all the trying vicissitudes it ever brings alike to the active and to the maimed.

In the second category of contusion with pulmonary laceration we find, so far as my experience guides me, the most frequent association of pulmonary congestion with traumatism; but the doubt remains whether this is often, indeed ever, a lobar pneumonia. Take Case 2 as an example, for it occurred in a man of fine physique, who rallied quickly from the shock of his injury, and whose cardiac force was soon re-established. He was, unfortunately, at some distance from me, and I did not see him upon the second occasion until thirty-six hours after his accident. But the statement of his attendants was that the increased difficulty of breathing had come on gradually, that the fever appeared without any shivering or chilly feeling, and that it had lasted for about twelve hours before my visit. Then the condition was unmistakably that of great pulmonary congestion, brought about probably by shock and injury to the lung having produced a certain amount of blood stasis, to which condition was unhappily superadded sudden increase in vascular pressure. That there was actually fluid effusion into the alveoli is possible, for there was a notable absence of vesicular murmur, but that all the morbidity present was simply mechanical, the result of his treatment, I think, proved. A free bleeding gave immediate relief to his pulmonary congestion, and, as his general state was but symptomatic of this local condition, his pulse and temperature fell quickly, and in twenty-four hours after the venesection he was convalescent. The little clinical knowledge that is mine, of bloodletting in true pneumonia, is that it is capable of affording an almost miraculous relief in circumstances of urgency, but that, notwithstanding this relief, the disease continues its march, and may end in recovery or it may end in death.[1] A very similar pulmonary condition to that witnessed in this man, but naturally affecting both sides, is known to me as capable of being produced by exposure for many hours to a biting cold wind, a condition equally speedily relieved by bloodletting; but that such treatment cuts short a lobar pneumonia I have grave doubts, and this despite the characteristically able and ingenious argument of Professor Hamilton.[2]

Lobar pneumonia does not attack the whole of an organ at once; it spreads from one point; whereas in the case of A. H——, within twelve hours of the time his temperature rose, the greater part of his lung was involved. And I can recall, as bearing on and throwing a certain amount of light upon this condition, the case of a man over whose chest the wheel of a waggon passed, fracturing several of his right ribs and lacerating his lung, and who, never properly rallying, died in forty-eight hours. On post-mortem examination the whole of the injured organ was found so congested as to be little crepitant. With vital functions at so low an ebb, this must surely have been largely a mere mechanical effect. Case 3 is a good example of traumatic pneumonia characterised by slowly rising temperature—a temperature which was a fairly exact index of the amount of lung involved—by slow defervescence, by very gradual clearing of the pulmonary dulness, and, above all, by the residual changes attendant upon a more or less chronic and interstitial process.

The two cases in the last category are fair, perhaps happy, examples of the results of penetrating wounds, when the large vessels and larger air-tubes escape perforation. The first man recovered rapidly, and the inflammatory harm he had was limited to the immediate neighbourhood of his injury; while, in the other patient, it is difficult to decide how much the primary pulmonary hæmorrhage had to do with the inflammatory state. Unfortunately, I have no record of the condition of the upper part of the lung when he was first seen, but we know that he had free hæmoptysis when his injury was inflicted, and that this reappeared in close sequence to the rigor which ushered in his pneumonia. Examined at once when this declared itself, there were found loud bronchitic râles and fine crepitant râles at the summit. Some of these may have been in existence before the temperature rose, and it is therefore impossible to avoid their consideration. A febrile attack of variable duration is a frequent occurrence after an attack of hæmoptysis, and signs of pulmonary consolidation may certainly follow it. In this instance there was probably a double element—the wound and the hæmorrhage; but be the explanation of origin what it may, the pneumonia was unattended by any very pronounced physical evidence of condensation, and its symptoms and its signs disappeared, as they do in very many such cases, slowly and gradually.

Such seem to me to be the most notable features in the lung condition of those four cases of pulmonary traumatism, and the further question arises: How do they comport themselves when ranged beside those which characterise lobar pneumonia? Let us look at them at various points in their history. If there be one feature which, as a rule, marks emphatically pneumonic fever, it is the sudden sharpness of its origin—a rigor, with or without vomiting, and a temperature the height of which is quickly attained, and which, with the exception of the usual diurnal variations, remains high for several days—all this without possibly any sign, it may be without any distinctive symptom of pulmonary harm, and even if the physical condition be recognisable, its extent is no measure of the temperature elevation or of the gravity of the general condition. The development of physical signs is in a large proportion of cases speedy, and the manner in which they extend themselves indicates a more or less rapidly spreading process, a process which may involve a whole lung, or a considerable part of both lungs. When this extension has reached its limits—or, rather, when the disease has run its course—the crisis which denotes this is as sudden as was the commencement, and although for some days after there are to be recognised the auscultatory phenomena of hepatisation, in a wonderfully short space of time these usually disappear, and they leave no lasting evidence of their existence; indeed, a great clinician has written that "pneumonia has no sequelæ." It is somewhat otherwise with the traumatic form of the affection. This may be ushered in by a sudden perturbation, but it is generally even then easy to find in lung changes its true causation. In other instances the temperature rises slowly and gradually, and, its maximum

[1] Of this I have written somewhat fully in the International Journal of the Medical Sciences for July, 1887, "On the Remedial Value of Bloodletting."

[2] The Pathology of Bronchitis, pp. 110 to 129.

once attained, is usually in direct proportion to the amount of lung implicated, while its fall—like the resolution of the pulmonary harm upon which it depends—is equally gradual. In such cases the area of consolidation is a comparatively limited one, and even in the more sthenic and acute form—so far as my experience goes—the uninjured lung is *never* affected.

Abscess, as Mr. Erichsen points out, is not an uncommon termination in traumatic pneumonia, and although at times, as he further indicates, the presence of a foreign body may determine such a result, there may be in the nature of the morbid process itself this natural tendency. Such an event is rare in croupous pneumonia; so rare that some authorities doubt the possibility of its occurrence.[3] The origin of phthisis in acute pneumonia is also questioned by many, but I take it that not a few surgeons can call to remembrance instances of tuberculosis which seem to have had their beginning in an injury of the lung.

Two other phenomena in very frequent and very close association with lobar pneumonia are herpes and albuminuria, but I have never seen either as the accompaniment of a traumatic pulmonary inflammation. My belief, therefore, is that although in a certain proportion of cases the very acuteness of the signs and symptoms attendant upon such lesions may simulate closely pneumonic fever, they have their origin in a mechanical interference with the pulmonary circulation, and that in their progress, and especially in the results they give when treated by free depletion, they differ very widely from croupous pneumonia. The less acute forms have features of their own possibly more readily recognisable, the most telling of which is the tendency they have at times to leave behind them such changes as may, if simple, be quiescent and long enduring, but which at other times do undoubtedly tend to pulmonary disintegration. While holding these views I admit that croupous pneumonia may, perchance, at times follow injury, and this is but what we might expect in accepting the modern pathology of the disease, for if the diplococcus of Fraenkel be the chief agent in producing the pulmonary inflammation, and if it exists, as taught by Sternberg, as a normal denizen of the buccal secretions, it is easily understood how, when once inhaled and implanted upon a soil prepared alike by local injury and by lowered vital force, it should flourish and show forth its fruits.

Experience in antiseptic surgery prepares me to accept with less hesitation the doctrine that no form of spreading inflammation is due merely to the reaction of the body against a local injury, and therefore there probably exist various organisms capable of producing a pulmonary inflammation. Erysipelas is, I know, one of these, and as in times past its close association with pulmonary injuries was greater than it is happily likely to be now, it is possible that under the cloak of a rapidly developed lobar pneumonia there was really the march of a specific germ disease (streptococcus erysipelatosus). This on the one hand and on the other the possible effects of blows and strains in "finding out" and bringing into quick recognition a developing pneumonia. This is so clearly put, in to my thinking the very ablest monograph we possess on pneumonia, that I am glad to quote it here. Sturges and Copland thus write: "The final conclusion in regard to the alleged traumatic origin of the disease seems to be this: lobar pneumonia does undoubtedly sometimes follow injury either immediately or with a short interval. In some instances this sequence is accidental, the inflammation not being caused by the injury, but only brought to light through its agency. In others there is a real but indirect relationship; the pneumonia arises, that is to say, not from any harm done immediately to the lung, but from the nervous shock which bodily injury, whether of the chest or elsewhere, is apt to produce, and which is common with fatigue, destitution, and alcoholic excess, predispose the individual to such attacks."[4]

My belief as to a possible etiological connexion goes rather further than this, but that it is not inflexible is best evidenced by the fact that, as the years have run and my experience has widened, I feel more and more inclined diffidently to rank myself with those—and among them are some of the wisest and best of physicians—who regard lobar pneumonia as an essential fever.

Cannes, France.

[3] To this opinion, however, I am unable to subscribe, as it has happened to me to treat successfully by direct incision and drainage a pulmonary abscess the sequel of an undoubted lobar pneumonia.

[4] Pneumonia, second edition, p. 327.

CASES OF INTESTINAL OBSTRUCTION TREATED BY LAPAROTOMY.

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(*Concluded from page 1371.*)

CASE 4. *Intestinal obstruction; laparotomy; recovery.*—G. C. W——, aged fourteen, was taken suddenly ill on Sunday, April 13th, 1890. He complained of severe pain in the abdomen, which was referred to the left lumbar region. The attack was regarded as one of colic, due possibly to some radishes and lettuces of which he had partaken freely. Some relief was obtained from some whisky administered by the father. On the following day the bowels acted after the administration of a dose of castor oil. There were two solid motions, one being small and thin. The pain did not subside. He was now seen by the family medical man, Dr. Jordan of Heaton Chapel. The abdomen became gradually distended, and symptoms of peritonitis declared themselves. Temperature 102°. For the next two days he remained about the same, the pain being very severe at intervals. Six days from the commencement of the attack Dr. Dreschfeld saw him in consultation. The abdomen had become very distended, and there had been no action of the bowels since the day after the onset of the attack. An enema of oil and glycerine was administered, with no result. Two days later an action of the bowels followed the injection of oil and glycerine; the motion consisted of hard fæces, with masses which looked like half-digested milk.—April 21st: Vomiting commenced; the vomited matter dark-green at first, then stercoraceous; some improvement followed; the abdominal distension, however, remained the same. Three days later passed several loose motions, which were of a buff colour and most offensive.—29th: There was a considerable improvement in his condition; the abdominal distension had largely subsided; he had passed several large motions and flatus freely. In the evening of the same day he was as bad as ever; he suffered from severe spasmodic abdominal pains every few minutes, and had to be kept under the influence of morphia. These symptoms continued for some hours, then abated, and the next day the lad was so much better that the father returned to his business. Towards evening, however, the spasmodic pains recurred and continued during the night, and for their relief morphia had to be freely administered.—May 1st: Passed a small piece of fæcal matter; the next day another piece the size of the stem of a clay pipe; it was of a pale buff colour, and very hard. The pain continued; a simple enema came back with some mucus, and emitted a most offensive odour; in the water were some portions of mucous membrane, which looked gangrenous. It was now determined to seek surgical aid. I saw him with Dr. Jordan early on Sunday morning, May 4th, three weeks from the commencement of the illness. The abdomen was greatly distended, and everywhere tympanitic. The spasmodic pains, which came on every few seconds, were distressing to a degree. There was no vomiting, and for two days the constipation had been complete. It was very evident that a fatal termination was impending if no relief could be obtained by an operation. This was fully explained to the parents, who readily gave their consent to any procedure which we deemed advisable. With Dr. Bain's assistance I performed laparotomy, Dr. Jordan administering the anæsthetic. The surface of the abdomen was cleaned with the perchloride solution (1 in 1000), and a median incision made. On opening the abdomen, distended small intestines presented, also some omentum, which protruded, and gave trouble. It was returned, and kept within the cavity by a flat sponge. The left index and middle fingers were now introduced, and passed downwards on each side towards the iliac fossa, but nothing abnormal was detected. They were then passed backwards between the distended coils towards the spine, and immediately a hard, knotty mass was detected, which proved to be some adherent small intestines. Two coils were firmly attached—indeed, blended—by some old adhesions, and one of them fixed down posteriorly by some recent lymph. In the immediate vicinity of these fresh adhesions the gut was very much injured. It was very dark, and appeared to be severely bruised. It looked

as if it were on the point of giving way. The appearances presented were very similar to those observed in a gut released after it has been strangulated for some time. This appeared to be quite sufficient to account for the symptoms, so, after removing some of the recent lymph from the surface of the intestine, the abdomen was closed, with silk sutures passed through skin and parietal peritoneum on each side. The liberation of the coils of intestine was no easy matter. It had to be conducted with the greatest gentleness owing to the condition of the gut; undue traction would have most assuredly caused a rupture, and so add immensely to the risks. During this part of the operation some coils of intestine had to be drawn outside and wrapped in soft linen dipped in a warm saturated solution of boracic acid.

There was no immediate improvement. The abdominal distension continued, as also did the spasmodic pains. It was feared that the cause of the obstruction had not been removed; and yet considering the state in which we found the gut, the non-action of the bowels, and the continuance of the symptoms, were not to be wondered at. We ventured to predict that some time would elapse before the parts had so far recovered as to render a restoration of function at all possible. A natural free action of the bowels occurred on the eighth day, which was preceded by the passage of flatus on the seventh, and was speedily followed by a subsidence of the symptoms, and a subsequent restoration of the usual health. It is worthy of note that the operation wound did remarkably well; the temperature, which had reached 100° on the evening of the seventh day after operation, being generally normal. For some days alimentation was carried on by injections of milk and beef-tea and by nutrient suppositories.

CASE 5. *Circumscribed suppurative peritonitis; pseudo-intestinal obstruction; laparotomy with evacuation and drainage of the abscess; recovery.* — A. W. W——, aged eighteen, son of a medical man, seen in consultation with Drs. March and Hodgson of Rochdale, Jan. 18th, 1890. It appears from the history subsequently obtained that the boy was taken ill on Friday night, Jan. 10th, directly he got into bed, with a severe pain across the abdomen. He had experienced a similar pain when at school in Edinburgh four years previously. He was in bed a day or two, but the pain did not finally disappear for a week. On the night of Jan. 10th, when the attack recurred, he could obtain no sleep, tossed about, and was very hot. For the following four days the pain continued with scarcely any abatement. It was alleviated somewhat by hot applications. He was fed with fluids, and complained of being hot and thirsty. On the afternoon of the fourth day the pain gradually ceased, and that night he had unbroken rest. The next morning, feeling all right again, he had a breakfast of an egg, bread-and-butter, and tea. About the middle of the morning, without the slightest warning, he was again seized with griping pains, which made his condition very serious. Some relief was obtained by the administration of morphia hypodermically. Sickness now commenced, and after this, in his own language, every drink he took appeared to fill him more and more. It should be mentioned that on the fifth day of the illness he had a rigor which lasted twenty minutes. When seen on Saturday, Jan. 18th, the abdomen was considerably distended, and on the right side towards the lower part, near the median line, there was an elastic swelling, which Dr. March could also feel through the rectum, reminding him, he said, of a tense ovarian cyst. The abdomen was opened by a median incision, and as soon as the cavity was entered old adhesions were encountered; the omentum was also adherent to the anterior abdominal wall. A finger was introduced, and some more old adhesions discovered, principally in the lower part on the right side. While gently separating these fluid escaped, at first clear, then decidedly puriform and ill-smelling. The cavity was washed out with a sublimate solution (1 in 5000); then a drainage-tube was introduced into the cavity through a fresh opening made at the lower part immediately over the situation of the purulent collection, and the median incision closed in its entire length. It will have been noticed that the position of the pus-containing cavity corresponded with the situation of the elastic swelling discovered before operation. He was sick in the afternoon of the day of operation. The pain ceased almost immediately, but his progress towards recovery was very slow. At first he was fed by the rectum, then food began to be administered by the mouth, at first in small, then in gradually increasing, quantities. The pus cavity gave us no anxiety. The discharge continued to emit an offensive smell for some days, although the temperature indicated no fever. The cavity was washed out with a saturated solution of boracic acid. The patient was seen on May 20th, when he was looking strong and well. The sinus had long ceased to discharge; no trouble with his bowels; appetite and sleep good. — June 18th, 1891: Mr. W—— called and expressed himself as being in a most satisfactory condition. He has passed through an attack of influenza and made a good recovery. The bowels act regularly, and beyond the scars on the abdomen he bears no evidence of his serious attack eighteen months ago.

Manchester.

LUPUS OF THE MOUTH, PHARYNX, AND LARYNX.

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THE frequency with which these lesions exist in association with skin lupus is not generally recognised, and as the matter is of some practical and pathological importance, it seems worth while calling attention to it. Its practical importance lies in this, that if not recognised when treatment by tuberculin is resorted to, and the dose correspondingly modified, the constitutional disturbance produced by the injection may be such as to cause anxiety, and possibly the local reaction in the larynx may give rise to symptoms of obstruction where none previously existed, and commonly difficulty in swallowing will arise from the soreness produced in the passages by the local reaction. Lupus in these parts is very interesting pathologically, because the features of the disease are much less variable than those of lupus of the skin; interesting, too, as resembling those lesions of similar parts which are often spoken of as chronic tuberculoses. During the last three months thirteen cases of lupus have been admitted to the hospital for treatment, and through the kindness of my colleagues I have had an opportunity of examining all these, with the result that in six of them lupus has been found on either palate, pharynx, or larynx, sometimes on all three, though in only two were there symptoms pointing to implication of these parts. Although these cases were not selected in any way, it is probable that the proportion in which these mucous membranes were affected is considerably higher than generally obtains, for the reports of other observers, made on a larger number of cases, makes the proportion vary between 10 and 20 per cent. All are agreed, however, that females suffer more than males, and this is brought out to a singular degree in my cases: of the thirteen patients six were females and seven males; five of the females, but only one male had lupus of the oral and adjacent cavities. The condition of those affected is illustrated by the following cases:—

CASE 1.—Female aged thirty, the subject of lupus of the nose and cheek for five years, during which time erasion has been done thrice, but without permanent improvement. When admitted, Jan. 21st, 1891, in addition to the diseased areas mentioned above, it was found that the surface of the hard and soft palate was reddened, mammillated, and granular, with superficial ulceration in patches over the hard palate; the uvula was as thick as the index finger, excoriated and papillary; epiglottis uniformly red, swollen, and on its upper margin granular; its thickness was about a quarter of an inch, and this obscured the interior of the larynx, so that only the inter-arytenoid fold could be seen, and this was swollen and partly covered with adhesive secretion. It should be mentioned that the lupus on the cheek and nose was rather of the erythematous type, and that the septum nasi was considerably involved. The patient did not know that there was anything the matter with the palate and adjacent parts.

CASE 2.—A girl aged seventeen. Was admitted on Feb. 16th, 1891, with lupus of the left side of the face and neck, and a patch on one knee and shoulder. She complained also of difficulty in swallowing. In addition to a history of hip-joint disease in an aunt, her father suffers from lupus. The skin lesion of the neck commenced about eighteen

months ago, when some glandular abscesses broke in that region. On the right side of the hard palate was a patch three-quarters of an inch long and half an inch wide, raised, papillary, and reddened. The posterior half of the soft palate and the pillars of the palate were in a similar condition, but here there was some actual ulceration, whilst the uvula was deformed and papillary; the posterior wall of the pharynx on the right side was also affected. The epiglottis was much thickened and rigid, and on its posterior margin slightly mammillated, both ary epiglottic folds were swollen and rather granular, and the ventricular band on the left side was œdematous and nodular, so that the left cord was almost entirely hidden.

CASE 3.—A girl aged sixteen. Was admitted on Dec. 30th, 1890, with lupus of the nose, ulcerating and covered with an enormously thick scab; there was lupus also of the conjunctiva of the upper eyelid and a tubercular nodule of the iris. The nose had twice been erased. On the margin of the soft palate and uvula, on the left side, there was a crenated scar, whilst both pillars of the palate on the same side were swollen, papillary and superficially ulcerated.

CASE 4.—A girl aged thirteen. Was admitted on Feb 26th, 1891, with lupus of the nose of two months' duration, of the forearm of eighteen months' duration, and of the eyelid of five years' existence. There was also tubercular osteitis of several phalanges and tubercular disease of the left elbow-joint. On the left margin of the soft palate was a small bright red patch, over which were seated tiny white nodules, and this condition extended on to the surface of the left tonsil, but here there was a tendency to papillary formation. It should be mentioned that both tonsils were considerably enlarged, but the lupus patch on the left was easily recognised as distinct from the ordinary hypertrophy. The mucous membrane over both arytenoids was red and swollen.

CASE 5.—A boy aged fourteen. Was admitted on Jan. 22nd with lupus of the nose, very similar in appearance to that in Case 3. It had existed two years. On the soft palate was a small patch, reddened and excoriated, and on this base were tiny white spots having much the appearance of tiny corneal ulcers. On the upper surface of the epiglottis to the right side was a reddened area also bearing some of the white spots above mentioned, and in addition some small reddish nodules.

CASE 6.—The condition of this patient was fully described in THE LANCET of Feb. 28th, 1891. She was shown at the Midland Medical Society on Jan. 14th, 1891, as an example of lupus of palate and larynx without skin lupus; but when she was admitted later for treatment a single nodule, the size of a small pea, was discovered on the right cheek; and at this time the destruction of the gums in front and behind was loosening the teeth.

From the above descriptions it will be seen that the disease was exhibited in all gradations, from the very slightest in Case 4 to a very advanced stage in Case 6; yet anyone examining the whole series would not hesitate to regard the disease as essentially the same in all. The earliest condition appears to consist in a bright-red area, well defined at its edges, with tiny white spots seated on it, and with a loss of surface which is too superficial to be described as ulceration; later, these white spots disappear, and a surface sometimes granular at others quite papillary or mammillated is presented, superficial ulceration being seen side by side with this. The ulceration may extend until it involves almost the whole thickness of the mucous membrane—for instance, of the palate,—but it does not appear to perforate or to destroy bone, though, like lupus of the skin, it does not respect cartilage, for the epiglottis may suffer severely, as in Case 6. The tendency to ulceration is more marked where there is most exposure to friction, as on the hard palate, whilst in such parts as the larynx, apart from the epiglottis, it occurs only exceptionally. Cicatrisation happens spontaneously sometimes, and if it does not the progress of the disease is very slow, and is not very much influenced by such local treatment as the use of lactic acid and by general tonics. In his work on Diseases of the Throat, second edition, Mr. Lennox Browne figures a remarkable case of stenosis of the larynx from the cicatrisation of lupus, in which there was an opening for the passage of air which would only admit an object the size of a goosequill.

There is no one special variety of lupus with which the disease in these cavities is associated, and, as I have already mentioned, there is much less diversity in the appearances presented by the mucous membrane lupus than is seen in the skin affection. Mr. Hutchinson, in his recent lectures on Lupus, insisted strongly upon exposure to the influence of cold as a potent factor in the production of the disease; but this can hardly apply when these mucous surfaces are affected. It might be suggested that the affection of mucous membranes is due to extension by continuity of tissue, from the nose for instance; but this could only hold good in one of my cases; in the remaining five the skin and oral lesions were absolutely discontinuous. In all the cases injection of tuberculin had quite as pronounced effect on lupus of the palate, pharynx, and larynx as it had on the lupus of the skin, and the local reaction was similar to that of ordinary laryngeal tuberculosis after injection, though there was not the same tendency to rapid necrosis. The remedial value of the injections appears to be as considerable in the mucous surfaces as in the skin. This has been especially the case in the deep ulceration over the hard palate in Case 6. This is the more interesting as pointing to the relation between lupus and ordinary tuberculosis, because if the ulcer just mentioned had been placed alone on such a part as the tongue, it would by most observers have been regarded, from its characters, as an ordinary tubercular ulcer.

Birmingham.

THE USE OF ACETANILIDE IN THE TREATMENT OF ACUTE AND CHRONIC BRONCHITIS.

BY E. F. GRÜN, M.R.C.S., L.R.C.P.

HITHERTO the malady known as catarrhal bronchitis has been regarded as a disease of the bronchial mucous membrane, produced in the majority of cases by a chilling of the general surface of the body and quite independent of any specific infection. It will be my endeavour in the following remarks to prove that bronchitis is the direct outcome of infection by a specific organism. My attention was first drawn to the existence of the organism, which observation has led me to believe to be the actual cause of bronchitis, during the examination of sputum for the bacillus tuberculosis. Many cases of catarrhal bronchitis were sent to me to examine in view of the possibility of the bacillus tuberculosis being present in them. In a very short time the constant presence of a bacillus of regular form and characteristic appearance was evidenced to me. Having assured myself of the presence of the organism in every case of bronchitis which had hitherto come under my notice, my next endeavour was to isolate the organism by the gelatine plate cultivation process. In this I succeeded without difficulty. Next a series of subcultures was made, with constant testing as to the purity of the subculture by further plate cultivation. What I propose is, first, to describe the nature of the organism; next to give the experiments carried out in cultures and inoculations; and then to describe the substances which have been found capable of destroying the organism within and without the body.

THE BACILLUS OF ACUTE BRONCHITIS.

On examining the sputum of any case of acute bronchitis, the expectorated matter is found to consist of pure mucus, embedded in which are pus cells, epithelial cells, leucocytes, and granular material of a highly refracting nature, probably oily. In and among the pus cells, upon the epithelial cells, and lying free in the mucus, are a number of bacteria. When not contaminated by secretions from the mouth these bacteria consist of one easily distinguishable species, constant in size, shape, and peculiarity of staining. This bacterium is a bacillus, in that its length is about twice its breadth, and from observation in cultivations appears to give off spores. Its length is very constantly about two micro-millimetres when met with in preparation from sputum. On cultivation, however, alterations take place in its morphological character, which will be subsequently described. The organism is constricted in the centre very like bacillus fluorescens. The two parts on either side of the constriction are rounded. The organism stains readily with gentian violet and methylene blue; it occurs singly, in pairs, and in clusters or zooglœa,

as before remarked, lying free, and in the substance of leucocytes, in many of which the organism can be seen, apparently causing some coagulation of the leucocyte protoplasm around it. Some leucocytes have more than one bacillus in their interior, a coagulation of the protoplasmic matter taking place around each bacillus and causing the leucocyte to split up, each surrounded bacillus forming a cell, impossible to distinguish from a pus cell, and ultimately losing itself in a granular degeneration. The leucocytes thus absorb a certain number of the bacilli; the absorbed bacilli cause a coagulation of the protoplasm of the leucocyte, and presently a granular destruction of the leucocyte. Upon epithelial cells the bacilli produce no change, but are simply collected in numbers upon the surface of the cell.

Organisms when mounted on cover-glass, with a little gentian violet to colour, exhibit active movements under one-twelfth of an inch. The movements seem to consist of contraction and expansion of organism; a mobile movement in varying directions; a swaying movement, one end of the organism being fixed, a twisting movement on the long axis of the organism giving a screw-like outline to the organism. Cultures a month old exhibit the organism somewhat altered in character, and give rise to a suspicion that the culture might not be quite pure; but plate cultivation gave a reversion to the original form of organisms as seen in sputum and as seen in the tube cultures of twenty-four hours' growth The alteration in form consisted in an increase in length of the organism and a loss of the characteristic central constriction in a large number of the individual bacilli of the thirty-day-old culture. The reaction of the scum produced is strongly alkaline.

Cultivation.—The organism grows readily upon nutrient gelatine and agar-agar, at a temperature between 5° C. and 40° C. A temperature above 40° C. retards growth; above 50° C. the organism is destroyed; while a temperature below 5° C. appears only to arrest the growth, for on the temperature being raised it resumes its growth with unimpaired vigour. The growth takes place upon the surface of the nutrient media as a flocculent film, but gradually penetrates the interior of the agar-agar nutrient. The surface of the medium upon which the organism grows gives a strong alkaline reaction; a gas of a sour and most offensive odour is given off. The growth is apparent twelve hours after inoculation of nutrient media. When grown upon nutrient gelatine the gelatine is liquefied.

SUBSTANCES USED FOR ARRESTING GROWTH UPON NUTRIENT MEDIA.

One decigramme of each of the following substances was added to a tube of nutrient agar-agar and also to a tube of nutrient gelatine. The tubes were then inoculated from a subculture of the organism; other tubes were inoculated as control experiments, with the results tabulated below.

Iodoform	Free growth in 7 days.
Carbolic acid (½ %)	,, in 7 days.
Do. (1 %)	,, in 10 days.
Do. (2 %)	,, in 28 days.
Do. (10 %)	,, in 50 days.
Menthol	,, in 3 days.
Thymol	No growth.
Boric acid	Slight growth after 10 days.
Aniline chloride	Free growth in 4 days.
Acetanilide	No growth after 40 days.
Untreated tube	Free growth in 24 hours.
Liq. hydrargyri perchloridi...	No growth after 60 days.

It was thus found that a free growth of the organism took place upon tubes of nutrient material to which iodoform, carbolic acid, menthol, and aniline chloride had been added in considerable quantity. But tubes to which acetanilide and liquor hydrargyri perchloridi had been added gave no growth even when kept for a long period. Of these agents capable of checking the growth acetanilide alone was available for internal administration, and this agent appears to possess antiseptic powers equal almost to those of perchloride of mercury, while being perfectly innocuous, odourless, and tasteless. Further, when administered as an internal remedy it appears to possess the power of cutting short acute catarrhal bronchitis in a striking and rapid manner, twenty-five consecutive cases being treated with the remedy with unvarying successful result in arresting the disease within comparatively a few hours. This statement, taken with the fact, which is open for any observer to test, as to the power of arresting bacterial growth in nutrient media, should lead to an extended trial of the remedy. To produce a beneficial effect doses of some magnitude must be given, such as five grains at alternate hours.

CLINICAL OBSERVATIONS.

The experiments were commenced by taking selected specimens of sputum from cases of bronchitis, and by obtaining cultivations of the organism from these specimens. Three typical cases will be quoted which will serve as a type of the remainder.

Names of cases: L——, E——, C——, R——, and B——. Control experiments: B——, G——, and S——.

L——.[1] Case of acute bronchitis, supposed to have arisen from a chill. Patient had a temperature of 103° F., with the usual symptoms of acute bronchitis. The sputum examined at the commencement of the illness consisted of mucus-pus cells and epithelial cells; in the sputum were large numbers of the bacilli. A sterilised platinum needle was dipped in the sputum and then a tube of nutrient gelatine inoculated with the needle; another needle was dipped in the inoculated tube and then transferred to another tube, forming a first attenuation. The content of this tube was then poured out into a Petri glass dish and placed in the incubator; at the end of twenty-four hours the growth was apparent upon the surface of the gelatine, which rapidly coalesced to form a scum over the surface of the gelatine. Immediately on perceiving the commencement of the growth a nutrient tube was inoculated and the first subculture thus started. On microscopic examination the organism grown on the gelatine was found to resemble in appearance that found in the sputum. The growth was apparent in the subculture in twenty-four hours; another tube was then inoculated, and so on until ten subcultures were obtained. The patient recovered under the influence of poultices, and at the end of four days no organism was to be found in the sputum.

E.—A patient also suffering from bronchitis of about fourteen days' duration. The organism present in large numbers. Same cultivation made down to tenth subculture, with similar results. Patient treated with acetanilide; arrest of symptoms in twenty-four hours.

C.—This patient presented herself with severe cough. Sputum examined for bacillus tuberculosis; none found, but a large number of the bronchitis organisms present. Cultivations made, with result as detailed in case L——. Patient treated with acetanilide. Rapid arrest of cough and disappearance of organisms from sputum.

R.—This patient was seized with severe bronchitis in the middle of the night. Seen early in the morning, bronchitis organisms were present in large numbers. No pus cells; pure mucus and epithelial cells. Temperature 100°. Patient given acetanilide every two hours with marked benefit. All symptoms of bronchitis absent at the end of twenty-four hours.

B.—Chronic cough. Bacillus bronchitis present in great quantity; cough present for some years. Treated with acetanilide, eight grains three times daily. At the end of fourteen days the degeneration of the organism was plainly to be discerned in specimens of the sputum examined by the usual method.

Three control experiments were made. The sputum of three individuals suffering from cough, probably pharyngeal, was taken, and with it inoculations of tubes of nutrient gelatine were made. No special organisms could be detected in the sputum, which consisted of mucus with epithelial cells and leucocytes loaded with carbonaceous particles, and although the tubes of nutrient media have been preserved in a temperature similar to that in which the growing tubes were placed, no growth has hitherto taken place either of the bronchitis organism or of any other organism. These experiments tend to establish the fact that the human economy is not so full of organisms as some writers on bacteriology would have us believe.

GENERAL CONCLUSIONS.

From a consideration of the evidence thus brought together, it becomes apparent that bronchitis can no

[1] The whole details of the cultivation method will be given with this case, but with the other cases this will not be necessary.

longer be regarded as a manifestation on the part of the bronchial tube of a simple chilling of the blood circulating in the capillaries of the skin, although there can be very little doubt that it is from this cause that cases of bronchitis arise in an indirect manner. No doubt the chilling of the blood causes an alteration of the conditions governing either the entrance of the bacteria into the bronchial tubes, or their destruction and elimination when entrance has been obtained by them into the lung. As an hypothesis we may assume that possibly the cilia of the tubes act less readily after chilling, although this has not been proved at present as far as cilia within the body are concerned. Cilia without the body do certainly require some particular temperature, at present undetermined, but none the less certain, for the proper exercise of their powers; it may be that as the chilling is more or less intense, so do the organisms penetrate deeper into the lung tissue, and give rise to symptoms of greater or less gravity. Or there may be defective power of destruction of bacteria after chilling. From examination of sputum it appears probable that the presence of bacteria or other foreign substances, such as carbonaceous particles, attracts to the surface of the mucous membrane leucocytes, phagocytes, or other wandering forms of cell life, which, under ordinary conditions, destroy in their own manner bacteria, or carry off solid inorganic particles incapable of destruction to parts less sensitive to their presence. When, however, the numbers of bacteria are very great, the exudation is for a time not sufficiently rapid to effect the necessary clearance of the irritating substance, and further help is required. Help gradually arrives, in many cases aided by poulticing and local stimulation, and presently the difficulty is overcome, or the individual succumbs in the effort.

Putney, S.W.

ON BRUIT DE DIABLE IN CHLOROSIS.

BY ADOLPHUS J. RICHARDSON, M.D.,
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THE paper lately read by Dr. Bewley renders opportune the following notes on bruits de diable in chlorotic patients. The percentage of cases in which these murmurs are found seems to diminish with each fresh observer. Thus in healthy young females Dr. Herbert Davies gives 85 per cent., whereas Dr. Bewley says only 61·5 per cent., while my own investigations give but 51·4 per cent. in patients, all of whom are chlorotic. The difference between my figures and those of others arises, I believe, from my having invariably used a binaural stethoscope, with which lighter pressure can be applied than is necessary to maintain a wooden one in position, and from my having used in each case a chest-piece small enough to be applied flat without any pressure. I must also note, with all deference, that neither Dr. Davies nor Dr. Bewley used a hæmoglobinometer in their cases, and after a large experience with that instrument, I am convinced that many cases of anæmia cannot be diagnosed by the most careful examination of the lips, conjunctivæ, nails, or soft palate. In a patient with 50 per cent. or more of hæmoglobin, these means of diagnosis are frequently useless. My figures are derived from the consideration of 180 typical cases of chlorosis. All were unmarried women over fifteen and under twenty-seven years of age, in whom the amount of hæmoglobin, as determined by Gowers' hæmoglobinometer, was below 50 per cent. of the normal amount in the adult male. No continuous venous hum was heard in the neck in 89 cases, a hum on the right side only in 60, on the left side only in 11, and on both sides in 20; or put into percentages:—

No venous neck hum	49·4
Venous hum on right side only	33·3
" " " left " "	6·1
" " " both sides	11·1

The following table shows some details about these groups, the second vertical column representing all the cases in which the hum was heard. The hæmoglobin was estimated a second time five or six weeks after the patient's first attendance, the initial percentage subtracted, the difference divided by the number of weeks of attendance, and the quotient is called the weekly improvement.

—	No venous neck hum.	Venous hum present.	Hum on right side only.	Hum on left side only.	Hum on both sides.
Age of patient	19·1	19·0	19·0	19·8	18·9
Initial percentage of hæm.	26·6	20·9	22·45	19·54	17·5
Percentage of basic bruits	59·5	74·7	70·2	63·6	94·7
Percentage of headaches	81·1 (74)	95·1 (82)	94·5 (55)	100·0 (9)	94·4 (18)
Average weekly improvement	4·03 (47)	5·2 (51)	5·05 (33)	5·7 (8)	5·34 (10)
Percentage of œdematous legs	66·0 (78)	75·5 (88)	75·6 (71)	75·0 (72)	—

Note.—The last three lines being based on smaller numbers than the upper three, I have written under each number upon how many observations it is based.

From these figures it would appear that, given a certain degree of anæmia, the age of the patient does not make much difference in the production of these bruits. There is a well-marked difference between the initial percentage of hæmoglobin in the first and last columns; so, too, with respect to systolic bruits heard at the base of the heart, for the most part loudest at the pulmonary area. That the cases with bruits improve faster than those without bruits I believe to be solely due to the initial percentage of hæmoglobin being lower. The more anæmic a patient is, the more readily is the percentage of hæmoglobin improved, as shown by the following:—

21 cases averaging	13·5	initial p.c. of hæm.	improved	5·78 p.c. per week.
24 "	19·4	"	"	5·14 " "
24 "	24·2	"	"	4·19 " "
22 "	33·6	"	"	3·8 " "

Thus by writing the initial percentages of hæmoglobin as ordinates and the corresponding average improvements as abscissæ may be constructed a curve of improvement.

The percentage of œdema of the legs may appear somewhat high; but I have written down as œdematous all cases in which I could pit the legs ever so little. Very few were considerably œdematous, a large proportion denied all swelling.

The neck bruits are nothing like so persistent as the heart bruits; thus, a typical case under treatment ran:—

Oct. 2, 1890: Hæmoglobin 14. Systolic basic bruit. Venous hum right side.
Nov. 13, 1890: " 60. " " " No venous hum.
Feb. 5, 1891: " 70. " " " " "

the systolic bruit being still well marked, although the patient had lost all the ordinary signs of anæmia. I have definite notes of relapses in twenty-seven cases; of these, eighteen had a venous neck hum on their first attendance—i.e., 66 per cent., a considerably larger proportion than in the whole series. Is it not possible that the presence of these bruits may be an aid to prognosis? In twenty-six relapses on their second appearance alterations had occurred from the initial condition in thirteen cases as to neck bruits, and in only nine as to basic bruits. It is very noticeable in these relapses how every patient has apparently a fixed degree of anæmia, which drives her to the hospital, and how this degree varies from patient to patient—thus, one presented herself on Jan. 28th, 1888, with hæmoglobin 35, on Oct. 20th, 1890, with hæmoglobin 36; whereas another came on Feb. 23rd, 1889, with hæmoglobin 15, on Sept. 29th, 1889, with hæmoglobin 16, and on Jan. 22nd, 1891, with hæmoglobin 20.

Considering forty-two cases in which the bruits have been listened to for some time after the beginning of treatment, the venous hum has disappeared thirty-seven times coincidently with an improvement in the amount of hæmoglobin; in two a two-sided bruit had become one-sided, in three they were unaltered, but in these the last estimation of hæmoglobin all yielded under 46 per cent. These figures are surely conclusive that anæmia is a factor in the production of these bruits—a very moderate position, from which, however, some wish to drive us. In fifty-six cases with a systolic basic bruit on first visit I have noted its disappearance in thirty-eight; in eighteen it persisted at the last observa-

tion. In one case a systolic bruit appeared with an increased percentage of hæmoglobin, but this proved to be the herald of a serious relapse, which occurred during the continuous administration of iron.

Brighton.

INFLUENZA WITH ACUTE NEPHRITIS.

BY JAMES W. FRASER, M.D., C.M., M.R.C.S.

THE following case resembles that published by Dr. Mansel Sympson in THE LANCET, May 10th, 1890, though there are points of difference between them; thus, though the inflammation, judging by the amount of albumen passed, was more severe than in Dr. Sympson's case, and the amount of urine passed was very small, yet there never was any dropsy; and, further, there was not in this case any family predisposition to kidney disease.

Leonard P——, aged nine years, is one of a family of eight children, all of whom have suffered from influenza during the first three months of this year. One other case was severe, being followed by pneumonia, but the rest had mild and ordinary attacks. On March 2nd the case here reported commenced with the symptoms of influenza of ordinary type, except that it was accompanied by epistaxis. On the 3rd he was better, but worse again on the 4th, when his urine was noticed to be very scanty, and of an appearance described as "like beef-tea." He remained in much the same condition until the 7th, when he was seen for the first time. On that day he was in bed with headache, but no pain in the back, or any swelling of the body or limbs. The urine was very scanty, and smoke-coloured. It contained albumen, the amount being estimated by Esbach's tube at 0·2 per cent. Microscopically, the deposit was seen to consist of blood and granular casts, and fatty epithelium from the bladder and pelvis of the kidney. On the 8th his temperature had risen to 101·8°, which depended apparently on the commencement of an attack of bronchitis, showing itself by stethoscopic signs, and by pain and oppression in the chest. There was trifling œdema of the ankles. The urine, still very scanty, was acid in reaction, sp. gr. 1026, and contained 0·1 per cent of albumen and a deposit of blood, hyaline and epithelial casts. Some of the deposit was stained and examined for bacteria, numerous micrococci being found. On the 9th his temperature had fallen to 98°, and his pulse was weak, and accompanied by a thrill. He had little cough and no pain, and his chest condition had improved. The urine, however, contained much more albumen, it being estimated at 1·1 per cent. Esbach's tubes are not graduated to show such large amounts, and the estimation being made with undiluted urine, the quantity stated is only an approximation; it was, however, certainly very large, standing far above the graduations of the tube after twenty-four hours' settling. A curious property of the albumen was noted on that day, but was absent on other occasions. If a drop of nitric acid was added to some of the urine in a test tube, and the mixture boiled, very little precipitate was produced; but if the tube was put on one side for twenty-four hours, its entire contents gelatinised, so that it could be inverted without spilling. The smallness of the precipitate first produced is easily explained; some of the albumen was converted, no doubt, into syntonin by the acid, which body is not precipitated by heat; but why did it gelatinise on cooling? If the urine were first boiled, and then a drop of nitric acid added, a dense precipitate was produced, which amounted after settling for twenty-four hours to one-half of the column of urine. Microscopically the deposit from this day's urine consisted of blood and urates. On the 10th the patient's temperature had risen again to 99·8°, his pulse was 88 and had lost its thrill, and he had no pain except in a swollen cervical lympathic gland. The urine contained 0·35 per cent. of albumen by Esbach's tube, or about one-third of the column by heat and nitric acid. The albumens were more carefully examined on this day, and were found to consist of 0·3 per cent. of serum albumen, 0·05 per cent. of serum globulin, and a trace of peptone. The deposit consisted of urates, hyaline, and blood casts, with a few granular casts and some epithelium. On bacteriological examination only a few micrococci were found, and plate cultures in gelatine peptone gave rapidly liquefying colonies, which appeared to consist of the micrococcus ureæ. On the 12th his temperature ran up again to 100·2°, and his pulse to 96, but in all other respects he was better, having no pain or cough. The urine contained rather more than 0·1 per cent. of albumen or about one-sixth of a column. On the 13th his temperature fell to 98·6°, and on the 14th to 97·2°; it then remained subnormal until the 19th. The urine contained only traces of albumen, which finally disappeared, and on the 28th he was considered quite well. The urine was natural in amount and appearance, and has remained so since. The treatment adopted was rest in bed, poultices across the loins from the 7th to the 21st, and to the chest from the 8th to the 12th. The diet was strictly milk from the 7th to the 22nd, when meat was allowed. On the 8th he had a mixture containing aconite, bromide, and acetate of potash, and continued to take this until the 10th, when it was changed to one of hamamelis and lithia, which seemed rapidly to reduce the loss of albumen. Cases of nephritis following influenza appear to be rare. Among all the reports of the late epidemic in THE LANCET, in only four cases is albuminuria mentioned as being present, and in two of these it is not stated that it depended on actual nephritis. The two cases with nephritis are the one above mentioned, reported by Dr. Sympson, and one from Kustendjie, Roumania, reported by Dr. Irwin Bolton;[1] the two with albuminuria only are reported one by Dr. R. Sisley[2] and the other by Dr. Ewart.[3] This rarity may justify the publication of a fifth. There are two or three points in the case to which attention may be called. The great rise in the amount of albumen excreted when the bronchitis came on is interesting when viewed in the light of Schrieber's experiments,[4] in which he showed that compression of the chest in young people was capable of producing albuminuria. It appears as if the bronchitis, acting on an already diseased kidney, had produced a similar effect.

With regard to the trace of peptone found on the 10th, it may be stated that there was no doubt as to the nature of the body found. Dr. Kirk[5] appears to deny the existence of a true peptonuria, and to state that the precipitate usually reported as peptone is really mucin. There is, however, a ready way of settling the true nature of the precipitate, to which Dr. Kirk does not refer. If, after precipitating all albuminoids possible by heat and slight acetic acidulation, after the method of Sir W. Roberts, the filtrate from this precipitate be further acidulated with acetic acid and boiled with a few drops of freshly prepared solution of ferric acetate, the filtrate from this precipitation will be freed from all proteids except peptones, and any precipitate produced in the clear filtrate by metatungstic acid or potasso-mercuric iodide will consist of peptones.[6] Frequently urines are found which, remaining clear on boiling and acidulation, yet give a precipitate with potasso-mercuric iodide. This precipitate is either mucin or peptones, and its true nature can be decided by the above treatment. The source of the peptones found in the above instance appeared to be the digestion by the pepsin normally present in the urine[7] of some of the excreted albumen. The urine was acid, and was retained for a long time in the bladder, only being passed once or twice in twenty-four hours. There was therefore every opportunity for the formation of the peptones found. It has been shown that this action takes place outside the body, if albuminous urine be kept at the blood temperature.[8] The bacteriological examination was undertaken in the hope of finding the pneumococcus, which had been found in the urine of influenza patients by Dr. Jolles.[9] This microbe may have been present among those stained in the preparations examined on the 8th, but certainly was not the organism cultivated on the 10th, as the colonies produced were very different from those obtained from the pneumococcus in the case reported by the author.[10]

Hull.

[1] THE LANCET, vol. i. 1890, p. 103.
[2] Ibid., p. 12.
[3] Ibid., p. 1182.
[4] Ibid., vol. i. 1887.
[5] Ibid., vol. i. 1890, p. 959.
[6] On the Proteids of the Germinating Seed Green, Phil. Trans., vol. xiii., 1887.
[7] Sahli confirming the results of Brücke and Grützner, Archiv für die gesammte Phys., Band xxxvi., p. 209.
[8] Mya Gazz. delle Cliniche, No. 17, 1886.
[9] THE LANCET, vol. i. 1890, p. 262.
[10] Ibid., p. 1118.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASES OF DISLOCATION OF THE LOWER END OF THE ULNA AND SUBLUXATION OF TIBIA.

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CASE 1. *Crushed forearm.*—Robert D——, a checker, aged sixty-six, said two months ago his left forearm was caught between two heavy boxes when in a position similar to that when examined—i.e., extreme pronation. The left forearm was much wasted, the hand being in a position of extreme pronation. The elbow, wrist, and fingers were somewhat flexed, and could not be straightened without pain. The lower part of the forearm was much narrower than natural, and presented an oval, oblique prominence over the back of the radius. When this was examined it was continuous above with the ulna. The styloid process was separated some distance from the cuneiform bone. The head of the ulna was freely movable and quite separable from the radius, whose inner articular surface was easily mapped out. Above the lower end of the radius was some slight thickening and irregularity. Under chloroform the dislocation was reduced, but the deformity readily reproduced itself. Writers differ as to whether the deformity should be called a dislocation of the radius or ulna. As both bones are equally distant from the spine, Mr. Hulke suggests that the more movable bone—i.e., the radius—should be said to be displaced. It seems more reasonable to say that the bone is dislocated which is displaced most from its normal position, and the head of the ulna is the part whose relations are most changed. Sir Astley Cooper, Malgaigne, and Hamilton so denominate this injury. The cause of the dislocation is any twist or force with the forearms in a position of extreme pronation. Lately a patient was seen with both forearms showing this condition, the injury being caused by a fall on the palms with both wrists pronated — an accident which usually causes Colles' fracture. Sir Astley Cooper mentions that the radius is not usually broken, but Mr. Hulke says that fracture is not uncommon. In the case described it is doubtful whether the radius had been broken, but in the double dislocation there was certainly no fracture.

CASE 2. *Subluxation outwards of upper end of the tibia.*—Edward H——, a labourer, aged thirty-eight, said that two hours before being seen he was wheeling a barrow on a wet plank, eight feet above the ground. He slipped, his right leg, which was slightly in-kneed, bending under him. On admission, the right knee was slightly flexed and the foot everted. On the outer part of the joint behind, the tendon of the biceps made a prominent vertical ridge. In front of this was a hollow bounded by the prominent outer edge of the patella, which reached beyond, and was firmly fixed against the outer edge of the trochlear surface of the femur. The outer condyle of the femur was not felt, but below this the upper border of the tibia, lying in an oblique position, was felt with difficulty. Above this an oblique rim, parallel to the upper surface of the tibia, the external semilunar cartilage, was readily made out and easily pressed inwards. The under surface of the external femoral condyle could be distinctly felt. There was no œdema of the foot; pulsation of the posterior tibials on the two sides was about equal in force. Reduction was effected without chloroform by fully flexing the knee, hooking the left forearm under the knee, applying pressure inwards over the head of the tibia, while extension was made at the ankle. After a period of rest the patient recovered, with a perfectly useful knee. The presence of genu valgum predisposed to dislocation. The fixation of the limbs at the time of the injury, and the fact that the joint was not afterwards weakened, indicate that the crucial ligaments were not torn. In a case given in Sir Astley Cooper's work slight permanent lameness followed.

Bradford, York

THERAPEUTICAL VALUE OF VENESECTION.

BY JOHN MACKENZIE, L.R.C.P., L.R.C.S. EDIN.

THE similarity between a case reported by Mr. Gay in THE LANCET of May 23rd tempts me to submit the following, the more so since both of us in our treatment appear to have been guided by the discussion on Dr. Ogle's article which appeared in THE LANCET of May 9th of the present year. Recently I was called to see an old lady aged sixty-eight, said to be suffering from a "weak heart and bronchitis." On examination, I found her actually suffering from chronic Bright's disease, mitral regurgitation, and considerable œdema of the lungs. One evening I had an urgent message that the old lady had a "stroke," and was dying. On my arrival she was semi-comatose, face livid, breathing irregular and slow; speech gone, eyes closed, pupils even, and sensitive to light. The right side of her face was flaccid and motionless, the left side strongly contracted; the right arm cold, clammy, and powerless; temperature in the axilla subnormal; heart's action feeble, but regular. She passed motions unconsciously while I was present. From those symptoms—aphasia, paralysis of the face and arm—I diagnosed rupture of one of the branches of the middle cerebral artery, involving Broca's convolution and the motor centres for the face and arm. My prognosis was very grave indeed; but I was constrained "to do something" to satisfy the anxious friends, and recollecting the remarks of Mr. Jonathan Hutchinson, at the Medical and Chirurgical Society on Jan. 27th, 1891, on Dr. Pye-Smith's paper—"that a very simple measure gave all the advantages of venesection, and that was placing the patient's feet up to the knees in a bath of very hot water for a considerable period: this local determination of blood appeared to act just as efficiently as venesection in cases of head and chest injury,"—I determined to use counter-irritation to the nape of the neck, and ordered the feet up to the knees to be covered with poultices, changed every two hours till morning. The awkwardness of placing such a patient's feet in hot water is obvious. To my surprise next morning she was able to speak—though imperfectly—and complained of pain in the left side of her head. Gradually the face resumed its normal shape, and motion returned into the arm. In less than a week not a trace of either paralysis or aphasia was present. In the words of Mr. Gay, "she made an excellent recovery." Evidently I erred in my diagnosis. This was another instance of how closely the apoplectic attack, due to functional disturbance of the brain, may simulate that due to hæmorrhage. It seems to me that the advantage of venesection in the aged is doubtful when the abstraction of an ounce or two of venous blood relieves the congested area. A corresponding relief can be easily obtained by changing the determination of blood as directed by Mr. Hutchinson, who, by the way, confesses to have alternately denounced and recommended venesection. Moreover, have we not a double advantage in his method—e.g., congestion due to a torpid condition of the cerebral circulation? (*a*) By the dilatation of capillaries there is an increased flow of blood to the part, thereby changing the determination of the vascular engorgement; (*b*) by reflex action, stimulating to action not only the cerebral circulation, but cerebral tissue as well.

Intake.

BLOODLETTING; SLOW PULSE.

BY ARTHUR PERIGAL, M.D., C.M. ED.

THE excellent paper by Dr. Seymour Taylor recalls forcibly to my recollection the following case, illustrative both of the happy action of bloodletting and the (sometimes) hereditary nature of slow pulse. Some years ago I was asked to see a man who had been thrown from his horse. He appeared about twenty years of age, was quite insensible, pupils dilated, skin cold and moist, had vomited and passed urine. There was a bruise of the vertex, but no wound of scalp or any part of body, no bones broken, no bleeding from nose or ears. He had been in this state some hours; and, as no consciousness returned after four hours, I asked Dr. Stovin to see him, and we agreed to take a few ounces of blood from his arm. Before we had drawn four ounces he became quite conscious, expressing a wish to remount

and ride home. He was kept quiet in bed under the usual treatment. His pulse, however, never rose above 50, so he was kept in bed. Mentioning this to his mother as the only bad sign, she replied, "We have all slow pulses." I felt her pulse, and found it to be 46. Her daughter, aged eighteen, had a pulse of 50. The rest of the family I did not see, but was informed by the mother that another daughter and two brothers had slow pulses, also that her father (my patient's grandfather) had a slow pulse. I thought these notes might be interesting.

New Barnet.

A CASE OF SUB-PAROTID AND RETRO-PHARYNGEAL SARCOMA; OPERATION; RECOVERY.

By JAMES WILSON, M.D., F.R.C.S.

MR. G. S——, aged thirty-eight years, came under my care in March, 1890. Two years ago the patient noticed a swelling beneath the right ear, which was painful and tender to the touch. Iodine was applied, which gave him relief. Nine months afterwards, while drinking, he felt something giving way in his neck, and then for the first time he discovered a swelling in his throat. The substance in the pharynx gradually increased, his voice became thick, his respiration difficult, and there was marked snoring at night. During mastication he had pain and repeated attacks of hæmorrhage, from wounding of the mucous membrane by the teeth. He stated that drowsiness and disturbed sleep had troubled him for the last few weeks. The posterior wall of the pharynx was pushed forward by a growth, the soft palate was stretched, and the uvula turned to the left side. Below, the tumour was in contact with the tonsil, was continuous above the hard palate, and reached nearly across the pharynx. On the patient opening his mouth and taking a deep breath, a finger-like process was seen extending from the lower margin of the growth. The pharyngeal mucous membrane was vascular and freely movable. Beneath the ear and behind the ramus of the lower jaw was another tumour, which was evidently connected with that in the pharynx, as there was apparent fluctuation between them. On April 3rd the patient was put under chloroform by Dr. Stamper, and with the assistance of Messrs. Williams and Tuck the following operation was performed. A preliminary laryngotomy was rendered necessary, as during the administration of the anæsthetic the breathing became laboured and stertorous, the face livid, and the pulse feeble. Mr. Durham's tube was used. When air was admitted freely to the lungs the general condition of the patient rapidly improved. An incision was made over the anterior border of the sterno-mastoid muscle, beginning at the pinna of the ear and extending downwards for five inches, its centre being over the tumour. When the sterno-mastoid was reached and drawn backwards, the glistening capsule of the tumour came into view. The growth was readily separated from its connexions with the finger, but there was profuse hæmorrhage from laceration of a large vein. This portion of the growth rested on the posterior belly of the digastric, the stylo-hyoid muscles, and the carotid sheath, in relation above with the parotid gland and in front with the ramus and angle of the lower jaw. The tumour was now found to pass between the ramus of the lower jaw and stylo-maxillary ligament, and to reach the prevertebral fascia between the external and internal pterygoid muscles. The pulsation of a large vessel, apparently the internal maxillary, was felt above it. The pharynx was now plugged with a sponge. The jaws were widely separated by a screw gag, and, in order to gain still further room, the structures of the cheek were freely divided. The facial artery was previously compressed by a harelip pin. Having thus gained a clear view of the pharyngeal portion of the growth, an incision was made, carefully exposing the capsule in its entire length. The finger was again introduced, and the remaining attachments were readily separated. The entire tumour was now removed from the mouth by firm traction. The incisions were united by deep silver and superficial silk sutures. The sponge was removed from the pharynx. The operation lasted two hours and a half. The tumour on removal was dumb-bell shaped, and enclosed in a firm capsule. The pharyngeal portion of it was lobulated and about the size of an orange, the superficial portion that of an hen's egg. Mr. Jacobson examined the tumour microscopically, and found it to be a mixed glandular sarcoma, resembling in structure the parotid gland. The laryngotomy tube was removed fifteen minutes after the operation was completed. The patient for the first twenty-four hours was fed per rectum, but subsequently took liquid food without inconvenience.

The case calls for no detailed account, as it made an uninterrupted recovery. The highest temperature was 101·5°, and the wounds healed by first intention. The patient still continues well after a lapse of fourteen months.

Haverfordwest.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Procemium.

ROYAL FREE HOSPITAL.

TWO CASES OF VAGINAL EXTIRPATION OF THE UTERUS FOR CARCINOMA; RECOVERY.

(Under the care of Dr. HAYES and Mr. A. BOYCE BARROW.)

THESE cases are good examples of the performance of the operation of kolpo-hysterectomy for malignant disease, which in both appeared to be limited to the uterus. Careful examination of the patients before and during the operation showed no signs of extension of the disease either to neighbouring glands or to the surroundings parts. The growth had not attained to a large size in either patient, and the duration of the operation was about an hour and a quarter in each. Silk ligatures were applied to the broad ligaments in preference to clamps, as recommended by Greig Smith, Richelot, Muller, Landau, Péan, and others, and the result was as satisfactory in most respects as could be desired. The fact that secondary hæmorrhage occurred in the first case on the tenth day does not tell against the ligature, for more severe hæmorrhage has followed the use of instrumental compression. It will be noted that the cut edges of the vaginal mucous membrane approximated in each case to a slight extent. The prospect of complete recovery for these patients appears a good one; the disease was apparently quite removed, and, according to Fritsch, recurrence after removal by total extirpation is less frequent than after similar removal from any other part of the body. We have not space to consider the arguments for vaginal extirpation or for supra-vaginal amputation in cancer of the lower segment of the uterus; the opinion in favour of a full removal of the disease by total extirpation has at present most advocates, not only on the Continent but also in Great Britain. The primary mortality continues steadily to diminish and the ultimate results to improve. There are many causes for this: improvement in the method of operating, the more careful use of antiseptics, and the earlier stage at which the operation is performed being the most important. Dr. Cullingworth places the mortality from supra-vaginal amputation as over 7 per cent., and that of total extirpation as only 5 per cent. We would refer our readers to his paper on the subject read before the Obstetrical Society and to the discussion to which it gave rise.[1] For the notes of these cases we are indebted to Dr. Willmott H. Evans, registrar.

CASE 1.—A. B——, aged thirty-two, married, was admitted into the Royal Free Hospital on Feb. 2nd, 1891, complaining of "losing blood, with pain in the lower part of the abdomen." In her family history the only noteworthy point was the fact that her father's sister was said to have died of "cancer of the womb." Her personal history has always been good. The catamenia appeared at the age of fifteen, and have occurred regularly every four weeks since, but the loss has always been excessive. She was married at twenty-

[1] THE LANCET, vol. i. 1890, pp. 860-1073.

one, and has had five children, the youngest of whom is now two years and eight months. All the labours were fairly easy, and instruments were never used. During her third pregnancy (seven years ago) she menstruated every three weeks until "quickening" at three months and a half. During the fourth pregnancy also menstruation occurred every three weeks until quickening. At the end of May, 1890, menstruation was delayed two weeks beyond the usual time, and did not cease after a week, as was generally the case, but she continued to have a discharge of blood until August. There were no "floodings," but the discharge was continuous. In August the discharge ceased for two weeks, but then recommenced, lasted a week, and ceased. In about three weeks' time it reappeared, lasted a week, and stopped. On Oct. 27th she passed without pain several large clots, with some discharge. On the following day some more clots were passed, and the patient was examined by a medical man, who said that "there was nothing wrong with the womb." She stayed in bed a fortnight, and during the latter part of this time the discharge ceased, but severe continuous aching pain came on in the back, beginning at the sacrum, and extending up to the back of the neck. On getting up again the discharge recommenced, and was offensive in smell. Since Nov. 11th the discharge of blood has been continuous, except during the last two weeks, when it has stopped for a day or two, being replaced by a very offensive whitish discharge. At the same time as the discharge of blood recommenced she began to have a pain, which she described as "scraping," in the hypogastric region, and a pain "as after confinement" over the lower lumbar and sacral region. She has had no sudden attacks of pain and no floodings. From the commencement of her present illness she has got much thinner, her appetite has been very poor, and sleep has been bad. She has had no pain on micturition or defecation. The patient is fairly well nourished; the mucous membranes are rather pale. Dr. Hayes examined her, and reported as follows: "The anterior lip of the cervix is much elongated compared with the posterior, the latter being much shortened and thickened. The anterior lip, to the extent of rather less than half an inch, is reddened and raised and, as it were, curled back; there are several little bleeding points all along it. There is some redness near the margin of the posterior lip. The os uteri is widely patulous, and would admit two fingers. An ulcerated, sloughy surface can be seen inside. The uterus seems quite movable, and the broad ligaments quite free." There is a watery vaginal discharge, slightly coloured with blood; it is very offensive. The organs of the chest and abdomen seem quite healthy. A warm vaginal douche of carbolic acid (1 in 40) was ordered twice a day. Early in the morning of Feb. 8th the patient was seized with a very severe pain in the left iliac region, extending down to the hypogastrium; she described it as feeling like a strong labour pain. A few hours later some blood-clots and coloured watery discharge were passed, measuring in all 13 oz. From this time to the day of operation the patient had a reddish discharge in varying amount, with pain in the hypogastrium and in the sacrum, extending up the back.

On March 10th Mr. Barrow performed vaginal hysterectomy. The bladder having been emptied by a catheter the patient was anæsthetised and placed in the lithotomy position. The vagina was washed out with perchloride of mercury solution (1 in 2000), and a carbolised sponge with silk attached was passed up into the posterior fornix. Retractors were used to hold open the vagina, one posteriorly and two laterally. The cervix was seized with volsella forceps and drawn forwards, and a transverse incision (after removing the sponge) was made through the junction of the vaginal mucous membrane with the posterior surface of the cervix, the pouch of Douglas being thus opened and the intestines clearly seen. The cervix was then drawn backwards towards the perineum, and a similar incision made anteriorly, two small arteries being caught with Wells' forceps and ligatured. The bladder was then separated from the uterus with the finger and a sound passed into the bladder. The cervix was then drawn first to the right side and then to the left, allowing the lateral mucous membrane to be cut through. Four silk ligatures, each threaded on a blunt-pointed handled needle, were passed through the lower part of the right broad ligament and firmly tied; and the same thing was done on the left side. The broad ligaments were then cut through with scissors close to the uterus, as far up as the ligatures extended. There was slight bleeding on the right side, a small vessel having to be ligatured. The uterus was pulled out through the vagina until the fundus was visible. The right broad ligament was ligatured in its upper part by three strong silk sutures passed on handled needles, and snipped through with scissors close to the uterus, with which the right Fallopian tube and ovary remained attached. The left broad ligament was ligatured and cut through in the same way; the left tube and ovary also remained attached to the uterus. The lower part of the peritoneal cavity was sponged out with salicylic acid wool sponges, dipped in perchloride of mercury solution (1 in 4000). The edges of the mucous membrane were brought together with two catgut sutures. Six pledgets of wool soaked in eucalyptus, iodoform, and glycerine were packed into the vagina, and a pad of salicylic wool applied externally. There was very little hæmorrhage during the operation, which lasted an hour and twenty-five minutes. On making a section of the uterus, one found the growth (to judge by the naked eye) extending up only to the internal os, but involving the whole of the cervix. In the afternoon of the day of operation the patient vomited slightly at intervals, and complained of severe pain in the neighbourhood of the umbilicus; for the relief of the pain morphia was given hypodermically and hot fomentations applied to the abdomen. These lessened the pain. The diet consisted of three pints of milk and one pint of beef-tea.

March 11th.—Pain and vomiting continue. One teaspoonful of milk is given every half-hour.

12th.—The pain and vomiting are much less, but the retching is troublesome, so she is fed by nutritive enemata.

13th.—The temperature till to-day has not been above 99·6°, but this evening it is 100·2°. Four of the pledgets were removed from the vagina and replaced by two fresh ones. The vomiting still continues, and she is fed entirely by nutritive enemata. She has a sharp pain in the umbilical and epigastric regions.

14th.—Vomiting has ceased; the abdomen is quite flaccid; the pain is gone. She is again fed by the mouth. The pledgets were removed from the vagina, and a vaginal douche of perchloride of mercury was administered.

15th.—There is a slight coloured discharge. The temperature has each day risen to 100° F., but this evening it was 100·8° F.

16th.—Temperature has fallen to normal. Patient feels well. The discharge is dark and rather fetid. The vagina is syringed with iodoform and glycerine after the douche.

18th.—Patient is doing well. At 10 P.M. she was transferred to another ward. Temperature 100° F.

19th.—At 2 A.M. patient was found to be losing blood freely from the vagina, altogether amounting to fifteen ounces. A hypodermic injection of one-third of a grain of ergotin was administered, and ten minims of tincture of opium given by the mouth. The pelvis was raised on a pillow and the head lowered, and the vagina was plugged with pledgets of wool soaked in eucalyptus, iodoform, and glycerine. The pledgets were changed, and the vagina douched at noon; there was no fresh hæmorrhage. The temperature rose in the evening to 101°. A grain of opium was ordered twice a day. The temperature continued irregular till March 22nd, when it was 100·6°, but after this it did not rise above 100°.

26th.—There is still slight vaginal discharge with a slightly fetid smell. The opium was discontinued, and a tonic was ordered.

April 2nd.—On examination the peritoneal opening was found to be almost closed.

17th.—Patient sat up to-day, but fainted.

25th.—She can now stand alone. She continued to improve steadily, and on May 1st went to a convalescent home.

CASE 2.—C. H——, aged fifty-five, married, was admitted into the Royal Free Hospital on March 25th, 1891, suffering from a discharge from the vagina and pain in the hypogastrium. There was no family history of malignant disease. Her personal history was good, except that she was "delicate" as a child. She menstruated first at nineteen; the catamenia have been regular since, but there has been some dysmenorrhœa at times, and she used to pass blood-clots. She married at twenty-seven, and has had only one child; the labour was easy and no instruments were employed. She has never had a miscarriage. The menopause occurred eight years ago, when she lost a large quantity of blood. Three years ago she noticed some trouble in micturition, which gave her great pain. With this she had a slight yellow, stringy discharge from the vagina. For this she was

advised to syringe the vagina, but without benefit. About eighteen months ago she was examined by a medical man, who could find nothing wrong. About a year ago she had pain in the hypogastrium and bearing-down pains in the rectum, and she was an out-patient at St. Bartholomew's Hospital for three months. In June, 1890, she was admitted into St. Thomas's Hospital. A small piece of the cervix was removed and examined microscopically, and she was advised to have the whole uterus removed, but she refused. Since leaving St. Thomas's Hospital she has suffered from the pain and discharge as before, but to a less extent. Occasionally a little blood is mixed with the discharge. Six weeks ago she had much pain, and passed a "piece of flesh"; since then she has been better. She had become very thin and weak; but for the last nine months she has gained flesh, and is also stronger. The discharge at no time has been offensive. The patient is a delicate woman in appearance, and rather emaciated. The abdomen is flaccid, and there is slight tenderness on palpation in the left iliac fossa. On examination the cervix is found to be slightly enlarged, but shortened; and the whole cervix, with the lips, seems to be replaced by a sprouting tuberculated smooth growth. The tubercles are numerous, somewhat elongated, about one-eighth of an inch in diameter. The uterus seems fairly movable. There is some thickening in the right broad ligament. The other organs are healthy. The patient continued in about the same condition, with a varying amount of pain in the hypogastrium and sacrum, until May 19th, when Mr. Barrow performed vaginal hysterectomy.

The patient was anæsthetised with A.C.E. mixture, and then put in the lithotomy position. The vagina was syringed out with hot perchloride of mercury solution (1 in 1000). Volsella forceps were put on the cervix; it was pulled down and a ligature of Chinese silk passed through it. A duck-bill speculum was used posteriorly and a retractor on each side of the vagina. The mucous membrane between the posterior wall of the vagina and the hinder part of the cervix was cut through. The mucous membrane anteriorly was similarly divided. Then five strong silk ligatures, threaded on blunt-handled needles, were put into the broad ligament of the right side and tightly tied. The right Fallopian tube and broad ligament were cut through with a pair of blunt, pointed scissors, a few small arteries being seized with Wells' forceps and tied. Then the uterus was turned towards the right side and the same thing done on the left side. The uterus was separated by the finger from the bladder, a sound having been introduced into the bladder. All remaining attachments having been cut through, the uterus was removed; the vagina was then sponged out with carbolic lotion (1 in 20), and a stitch put in between the anterior and posterior edges of the mucous membrane, approximating them. The vagina was plugged with three plugs soaked in eucalyptus, iodoform, and glycerine, and then a pad of salicylic wool was applied to the vulva. The operation lasted about an hour and a quarter.

During the following night the patient retched much and vomited a few times. She was given milk with soda-water and ice by the mouth. There was a great deal of pain in the hypogastrium.

May 20th.—The pain is less, but comes on at intervals in a severe form. She seems to suffer much from flatulence, and for this capsicum and carbonate of ammonia were ordered. She sleeps fairly well with the aid of mild hypnotics.

21st.—The attacks of pain are less frequent and less severe, and are relieved by brandy. The superficial plugs were changed.

22nd.—The pain is less. She has solid food.

24th.—Slept very badly last night, and was in much pain. She was ordered three drachms of castor oil with fifteen minims of tincture of opium. The pain was but little relieved, and fifteen minims more were given. The bowels acted very freely, but the pain was not much relieved.

25th.—Pain last night was rather worse, but is now better. The temperature rose on the 23rd and 24th to over 99° F., but has since fallen to normal. In the evening the plugs were changed, and a douche of warm boracic was ordered for each day.

26th.—About noon severe pain was felt in the vagina and bladder; the patient said that it felt as if there was something there which could not be passed. In the evening the temperature rose to 101° F.

27th.—Temperature is nearly normal. There is frequency of micturition, and great pain before each time urine is passed, but the pain is relieved by micturition. The application to the vulva of an ointment of equal parts of compound petroleum ointment and zinc ointment diminished the frequency of micturition and relieved the pain.

From this time she steadily improved; the pain diminished and then disappeared. The dysuria ceased, and she was in much better health. From the vagina there was a slight yellowish discharge, for which a eucalyptus injection was ordered.

June 5th.—She got up to-day for the first time, and on the 11th she left the hospital apparently well.

ESSEX AND COLCHESTER HOSPITAL.

DISUSE OF LIMBS AFTER SEVERE DISEASE: A PSEUDO-PARALYSIS.

(Under the care of Dr. ALEX. WALLACE.)

THE account of this case is that of a condition but rarely met with, but of which Dr. Wallace has already recorded other instances.[1] There is a kind of false paralysis without loss of sensation, but with wasting of the voluntary muscles of the body, which are no longer capable of performing their functions. It must be distinguished from the general paralysis of hysteria from that of progressive muscular atrophy, from a form of infantile paralysis, or a true paraplegia due to myelitis. The other cases published by Dr. Wallace are those of females aged from twelve to thirty, in whom there was a somewhat similar history of illness, necessitating confinement to bed, followed by loss of power and general wasting of some two to twenty months duration; in some this illness was said to have been rheumatic fever, in others it was not known. All recovered under appropriate treatment.

J. W——, a girl aged twelve, was admitted into the Colchester Hospital on March 2nd, 1891. The history given was that she had not walked for ten months, during which time she had been seen by three medical men. Her illness began with weakness and loss of appetite; some cough. She was said to have had hemiplegia, with paralysis of the left side, for three months prior to admission. She can now swallow food. The bowels are regular, and both sphincters act normally. She has pain in the left side; also a blood-stained discharge from the nose, mouth, and right ear; no bedsores. Family history good.

March 3rd.—She has slept well, and has no cough. Discharge from mouth and nose is slightly stained. Bowels normal; urine passed normally, sp. gr. 1035, very acid, pale, no albumen. Skin perspiring very freely about face and body. Quite conscious and answers questions properly. States she has pain in her head at the vertex. There is slight strabismus. Sensation is good everywhere. There are slight movements of the left arm and leg. The head wobbles about; she has no power to keep it fixed. Lumbar and dorsal spines both show curvatures, but there is no spinal tenderness; no cardiac murmur. A general limp condition is noted of all the muscles of the body, which are all much wasted; the muscles of the right half, being used the most, are not so wasted. Reflexes normal. Temperature normal. While lying in bed she lifted each hand; she also elevated the legs and flexed the knees.

6th.—Sleeps well. Appetite fair. Has been sponged all over with tepid water and rubbed dry. She was now accustomed to her attendants and willing to be treated, so she was ordered an ounce of wine and an egg daily with milk diet, and to take two minims and a half of the tincture of the perchloride of iron and one minim of the liquor strychniæ, three times a day. Sponging and rubbing to be continued. She weighed 4 st. 4 lb. Can now feed herself. Urine: sp. gr. 1026, dark-coloured, no albumen. Skin less moist; pulse improving. Can now move her left arm and leg somewhat.

17th.—Urine: sp. gr. 1016. Appetite good. Can now sit up. Weight 4st. 9lb. To have, besides her steel medicine, the interrupted current, to take a teaspoonful of cod-liver oil twice a day, and to have mutton diet. Can walk feebly when assisted by a nurse helping on each side, but by supporting her weight with her hands on a table she went round very easily. In the erect position the spine is free from curvature.

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[1] St. Bartholomew's Hospital Reports, vol. xxv., p. 201.

24th.—Sleeps well. Gets up each day and walks about the ward without assistance. There is some oozing of coloured fluid from the nose and mouth. The tonsils and pharynx, being found congested, were ordered to be treated with glycerine and tannic acid. The muscles of the limbs are in much better condition. She had a ball given her to play with. Weight 4 st. 11 lb. Mutton diet.

April 13th.—Discharged quite well with full use of all her limbs, with muscles well nourished and firm.

Remarks by Dr. ALEX. WALLACE.—Whatever may have been the ailments of this case during the ten months prior to my seeing her, and she was reported to have been more or less insensible for four months during her illness, and to have had hemiplegia, she must have had a severe wasting illness to be so reduced and emaciated. Her condition was one of extreme limpness, with constant profuse perspiration. Our first efforts were not to frighten her, but to encourage her with accounts of children similarly affected to herself that had been cured by us. In a day or two I began treatment by attempting to check perspiration by tepid sponging and rubbing; this, at first unpleasant, she soon learnt to like, and then we began with the battery. This also she soon got accustomed to. Eight days after admission she could support her head (which on admission fell about anywhere over her shoulders), and began to sit up. In fifteen days' time she began to walk, and then rapidly regained power. She left us with full use of all her limbs after a stay of six weeks.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Treatment of Squint by Advancement of the Recti Muscles.—Detachment of the Choroidea.—Temporal Hemianopsia of Left Eye and absolute Blindness of the Right.

AN ordinary meeting of this Society was held on June 11th, the President, Henry Power, M.B., F.R.C.S., in the chair.

Dr. ADOLPH BRONNER (Bradford) read notes of fifty cases of strabismus treated by advancement of a rectus muscle according to the method advocated by Schweigger. In this operation the muscle is thoroughly freed from its connexion with the sclerotic and with Tenon's capsule, and then attached, in a new position, to the superficial layers of the sclera and the conjunctiva. Most of the cases were operated upon without general anæsthesia, cocaine only being used. Dr. Bronner drew attention to the large number of cases of convergent strabismus, in which the external rectus was thin and atrophic. He thought it was of the greatest importance that the size and condition of the muscle should be ascertained before the advancement was performed. In many cases tenotomy of the antagonistic muscle was necessary, and in some tenotomy or advancement of the muscles of the fellow eye had to be done. In all cases of divergent strabismus tenotomy of the external and advancement of the internal rectus were necessary, and the immediate effect of the operation should be slight convergence. In no case should the same muscle be tenotomised more than once. The author thought that advancement of the muscle should be performed in all cases in which the squinting eye was amblyopic, and in which the angle of the deviation measured more than 30°. The advantages of advancement of a muscle over an ordinary tenotomy were that the danger of a subsequent strabismus in the opposite direction was much less, and that the operation aimed at strengthening a weak muscle instead of weakening a muscle previously strong.—The PRESIDENT said that his experience of tenotomy had been favourable, and that he rather preferred the simpler operation, in most cases. He had met with but few undesirable results. The cases he found most difficult to deal with were those of very slight squint with extremely troublesome diplopia.—Mr. JULER thought that the plan of tying two sutures was likely to set up a good deal of irritation. He preferred a modification of Critchett's operation, and with it had had good results. He thought that advancement of tendons in cases of strabismus was a method not fully appreciated by English surgeons.—Mr. EALES (Birmingham) described the method he adopted; he frequently performed advancement of tendons in strabismus.—Mr. EDGAR BROWNE (Liverpool), after referring to the older methods of treatment, described the plan he adopted himself. He considered the operation was simplified by introducing the sutures in the reverse way to that usually done—that is, to attach the thread to the conjunctiva or sclera at the point of fixation first, and subsequently to the tendon or muscle. He insisted on the importance of accurately correcting any astigmatism in cases of strabismus.—Mr. JESSOP had found that advancement of a rectus muscle without tenotomy of its opponent was of little value. He preferred to do the tenotomy by Landolt's method before advancing the weakened muscle.—Mr. COWELL said that in the operation described he recognised an old friend under a new name. It used to be known as readjustment. He had treated many cases of secondary divergent strabismus by this method, occasionally converging the eye during the first day or two after the operation by a suture passed through the skin of the bridge of the nose.—Mr. LANG pointed out that the terms readjustment and advancement of a muscle had different meanings. He thought it important in this treatment to endeavour to restore binocular vision at the time of the operation.—Mr. DOYNE (Oxford) and Mr. STORY (Dublin) thought that binocular vision after operations for strabismus was an exceptional result, and one which few operators seriously sought to obtain.—Dr. BRONNER, in reply, affirmed that Schweigger's method of operating maintained the normal lateral movement of the globe. He had long given up thinking about the restoration of binocular vision in cases of strasbismus.

Mr. STORY (Dublin) described a remarkable case of Detachment of the Choroidea in a man aged twenty-nine, who had been for more than two years under his care. When a child the patient was kicked by a horse on the right eyebrow and nose, and some years later was struck by a stone at the outer angle of the left orbit. These injuries seemed to have no connexion with the loss of sight, which occurred rather gradually in his right eye at the age of twenty, and in his left about a year before coming to hospital. During the two years he has been under observation no important changes have occurred in the state of the eyes, slight variations have taken place in the extent of the detachment, and his vision has remained pretty constant for fingers at two metres in the right and fingers at four metres in the left eye. Tension normal, or at times slightly subnormal; media clear except for a nebula on the left cornea, and opacities in both vitreous chambers; discs slightly hazy and marked perivascular thickening about all vessels. In the right there are two hemispherical detachments of the retina alone—one at the macula lutea, about three times the diameter of the papilla, and one at the inferior nasal periphery of a larger size, and extending to the extreme periphery of the fundus. Except at these two places, the choroidal stroma is everywhere as distinctly visible as the retinal bloodvessels, and everywhere requires exactly the same glass to observe it by direct ophthalmoscopic examination. The refraction of different portions of the fundus is as follows in the right eye: Disc centre − 1, edge + 1. Retinal detachment at macula with irregularity of lamina limitans interna + 8. Choroidea and retina at temporal end of horizontal meridian + 12 (a slight retinal detachment more peripherally + 13). At nasal end + 12, and large retinal detachment more peripherally + 18. Retina and choroidea at both ends of vertical meridian + 8. Left eye disc + 0·5. Macula + 1·5. Retina and choroidea at nasal end of horizontal meridian + 8, and on another occasion + 12, at temporal end + 12. At upper end of vertical meridian + 7 and again + 4, at lower end + 5. Mr. Story referred to the cases of detachment of the choroidea already published, and showed in what a remarkable manner the present case differed from all those which have been previously observed.

Mr. STORY also gave a further history of a case of Temporal Hemianopsia of Left Eye and absolute Blindness of Right, (not yet published) which he had brought before the Society in 1887. A girl aged nineteen came to him in 1885 with the right eye absolutely blind, and with complete hemianopsia of the left, the line of demarcation passing through the fixation point. The other symptoms were violent pains in the head, giddiness, vomiting, amenorrhœa, and tendency to corpulence. Since then these distressing symptoms have mostly subsided, but her field of vision remains unaltered, and central vision has considerably deteriorated. Vision, which was in 1885 = $\frac{1}{10}$·$_{70}$, is now only = $\frac{1}{20}$ (?).

Careful examination has completely failed to exhibit the hemianopic pupillary reflex. Mr. Story suggested that the case might be one of a tuberculous growth in the region of the chiasma, which had now for some years ceased to increase. Charts of the field of vision, taken at various times during the last six years, were exhibited.

The following cases and card specimens were shown:—

Mr. TATHAM THOMPSON (Cardiff): Emphysema of Conjunctiva.

Mr. STEPHENSON: Two Cases of Peculiar Retinal Pigmentation.

Mr. TREACHER COLLINS: Epithelial Implantation Cyst.

Mr. COWELL: Congenital Fissure of Upper Eyelid.

Mr. DOYNE (Oxford): Coloboma of Iris and Choroid, with Bulging of Corresponding Portion of Circumference of the Lens.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on May 1st, T. Gunton Alderton, Esq., President, in the chair.

Pathological specimens were shown by Dr. CLEMOW.

Chronic Rheumatic Arthritis.—Dr. S. ECCLES read a paper on this subject, under which title he included all forms of chronic arthritis not due to joint wound or bone disease, believing that whatever might be the predisposing cause, the exciting cause, was the same. Exposure to cold and damp after fatigue was shown to influence the chemical and physical state of joints and muscles. Acidity in excess was thus produced, and so favoured the deposition of uric acid, as shown by Dr. A. Haig, whose views on the etiology of rheumatism were supported by the clinical features observed in over one hundred joints affected by chronic arthritis. For such cases in which there was no evidence of suppuration or advanced destruction of tissue the indications for treatment being the alleviation of pain, the removal of the inflammatory products, and the restoration of healthy nutrition, Dr. Eccles employed a combination of massage, stabile galvanism, and exercises with appropriate constitutional remedies.—Dr. A. HAIG said he was particularly interested in the observations of Dr. Eccles on the effects of cold and damp following fatigue. Under such a combination of circumstances the alkalinity of the blood would be diminished and tend to precipitate the urate on the joints and other fibrous tissues, as suggested by Dr. Eccles. In acute disease the lesions thus caused might be repaired in a few days; but if the urate were present for more than a few hours, extensive irritation was set up which might smoulder in the tissues, even after the removal of the urate, eventually producing effects which were called rheumatoid. The treatment was, first, to foster the removal of the urate and prevent its reprecipitation, and this was best carried out by diet; and for the treatment of the damaged structures he knew nothing more likely to restore their healthy nutrition than the massage and galvanism so ably employed by Dr. Eccles.—The discussion was continued by Drs. Thorowgood, Thudichum, Savill, and Lloyd, and the author replied.

Appendicitis.—Dr. LUNN narrated two cases. Case 1: A boy aged eight had been quite well till two days before he was seen, and the bowels had acted naturally. On Jan. 10th the abdomen was greatly distended, dulness and tenderness with a sense of resistance were well marked in the right iliac fossa. It was decided to watch the case. On Jan. 20th a muco-purulent discharge was passed from the anus; the patient was collapsed, but the dulness completely disappeared. The boy rallied, and made an uninterrupted recovery. Case 2: A cabman aged fifty-eight was admitted suffering from obstinate vomiting and constipation and intense abdominal pain, chiefly in the right side, the flank being dull, while the rest of the abdomen was tympanitic. Abdominal section was performed thirty-four hours after admission. The right colon was found to be gangrenous and adherent to the belly wall. While search was being made for the appendix vermiformis fæces suddenly began to pour out from a perforation; this was clamped and stitched to the abdominal wall, a false anus being made, but the patient became collapsed, never rallied, and died twelve hours after the operation.

Dietetic Treatment of Obesity.—Dr. TOWERS SMITH, in the course of his remarks on this subject, said that in the initial stage of the treatment, lasting fourteen days, purely nitrogenous food only was given; in the second stage an addition of 25 per cent. of carbo-hydrates; and in the third 50 per cent. were allowed, all largely diluted. In cases treated eighteen months and two years previously, on returning to ordinary diet, always avoiding sugar and beer, the reduction in weight and bulk remained the same as effected by the treatment.—Drs. Clemow, Savill, and Campbell Pope took part in the discussion, and the author replied.

Reviews and Notices of Books.

The Watering-Places of the Vosges. By HENRY W. WOLFF. London: Longmans, Green, and Co. 1891.

THIS volume gives a clear, concise, and interesting account of a district still comparatively little known to the British tourist and health-seeker. This district is known to our French neighbours as "The Vosges," though it includes resorts not in the immediate vicinity of that range of mountains, and amongst its chief sanatoria may be enumerated Contrexéville, Plombières, Bourboune, Luxeuil, Vittel, Martigny, and Bussang. The above are all either upon the western slopes of the Vosges mountains or upon the neighbouring plain, and are all in French territory. On the eastern side of the range in German Alsace we have the less known names of Niederbronn, Sulzbad, Bühl, Kestenholz, Sulzmatt, and Wattweiler. Speaking generally, these resorts are characterised by a moderate elevation above the sea-level (from 1000 to 2000 feet), an abundant supply of somewhat weakly mineralised water of varying temperature, the most important constituents of which are lime, soda, magnesia, lithia, and iron; moderately bracing air, considerable simplicity of life, and (with one or two exceptions) moderate charges. These resorts are all very accessible, and can be reached by rail from Paris in from about seven to ten hours. The scenery is described as very attractive, the Vosges being characterised by "their fresh, green, smiling valleys, their unusually tall vines festooning the hillside, their magnificent sombre forests, and their quaint, neat villages." The hotel accommodation is described as excellent in the chief resorts, and as rapidly improving in the more primitive places. Of the Vosges watering-places, Plombières, which owed so much to the favouring patronage of Napoleon III., is the favourite. It is situated in a well-sheltered valley running north-east to south-west, at an elevation of 1310 ft. above the sea, and has a fine, invigorating climate, although the heat is often great. The surroundings are very attractive, and ample provision is made for the amusement of visitors. Plombières is emphatically a bathing spa, and the baths are on a magnificent scale. There are twenty-seven different springs in use, and the daily yield of water is estimated at 6750 cubic feet. The temperature of the various springs varies from 68° F. to 158° F., and the intermediate temperatures are well represented. The springs are only feebly mineralised (the chief ingredients being sulphate of soda, silicate of soda, bicarbonate of soda, and bicarbonate of lime), and belong to the category of "indifferent thermal" waters. Drinking the waters is not largely practised at Plombières, but there is a mild chalybeate and a mildly laxative spring which are partaken of. In addition to the baths, the *étuves*, or hot vapour baths, are a feature of Plombières. Massage and douching are largely practised. The maladies treated most successfully at Plombières are dyspepsia, neuralgia (especially of rheumatic or gouty origin), chronic rheumatism, migraine, lumbago, eczema, and chlorosis. Plombières is fashionable, and living is somewhat expensive.

Contrexéville is situated in the undulating country at the foot of the Vosges, its elevation being 1100 feet. The sur-

roundings are somewhat tame, but the efficacy of the waters is great. "Qui dit Contrexéville, dit gravelle," as the French saying is, and stone, gravel, and gout are the maladies for the relief of which this spa has acquired such celebrity. The principal spring is the *source du Pavillon*, which is only slightly mineralised, the solid constituents being 2·5 parts in 1000, and the chief ingredients sulphate of lime, carbonate of lime, sulphate of soda, sulphate and carbonate of magnesia, with traces of arsenic and fluoride of calcium. The temperature of this source is 53° F. According to a statistical table which Mr. Wolff quotes from Dr. Debout d'Estrées, of a hundred patients who go to Contrexéville on an average 37 suffer from gravel, 22 from gout, 19 from vesical catarrh, 19 from gouty diabetes, 7 from hepatic colic, and the remaining 10 from other diseases of the kidneys, the bladder, the liver, or the stomach. "The main boast of Contrexéville," says Mr. Wolff, "is the singularly solvent action of its water upon calculi; . . . on this peculiar virtue, and on the benefit in cases of gout rests the main reputation of Contrexéville." Cases of rheumatism and heart disease are advised not to go to Contrexéville.

Vittel lies near Contrexéville, and its waters bear a close resemblance to those of the more famous spa. Martigny-les-Bains, also close by, contains more magnesia and less lime than Contrexéville, and less magnesia and more lime than Vittel. It also sets much store on its possession of lithia, which the other two spas lack. Bourbonne differs materially from the resorts already considered. Its springs are strongly mineralised, and very hot. The chief mineral constituents are common salt, chloride of lime and magnesia, carbonate and sulphate of lime, bromide of sodium and chloride of lithium. The diseases most successfully treated at Bourbonne are chronic rheumatism, obstinate neuralgia, muscular atrophies, scrofulous diseases of glands, bones, and joints, malarious fevers, visceral engorgements of the abdomen, &c. Luxeuil is chiefly remarkable for its excellent chalybeate spring, in which the iron is combined with manganese and arsenic, and rendered digestible by the amount of carbonic acid present. It is said to have great efficacy in anæmia, hypochondria, rheumatism, neuralgia, &c. Bussang, lying at an elevation of 2000 feet, has a bracing climate and several chalybeate springs, and is recommended as a suitable place at which to conclude "the cure" begun at the other spas.

We have not space to notice the smaller spas on the German side of the Vosges. They are comparatively undeveloped, but seem to possess great natural advantages, and living is very cheap.

We can recommend Mr. Wolff's book. He writes well, and manages to convey much valuable information in an interesting manner. While frankly laudatory of the Vosges resorts, his commendations are discriminating; and on the purely medical questions he wisely relies mainly on professional authorities. His book will certainly stimulate interest in a region too little known in this country.

The Medical Digest. By RICHARD NEALE, M.D. Lond. Third Edition. London: Ledger, Smith, and Co. 1891.

THIS unique work bears on its title-page the essential reason of its compilation. It is therein styled the "busy practitioner's vade-mecum, being a means of acquiring information upon the principal contributions to medical science during the last fifty years." Its scope and tenour could hardly be more succinctly described, and the work itself must by this time be thoroughly well known to and appreciated by the profession. The first edition was issued several years ago by the New Sydenham Society, the Council of which recognised the merits and utility of such a compact and complete work of reference, not as being a mere bibliography, but as presenting in a manner never before attempted a classified synopsis of the facts, theories, and opinions stated by contributors to the leading medical journals upon every branch of medicine and cognate subjects during half a century. There is no doubt it supplies a place which is one of great value and importance, not to the literary student and journalist alone, but to every active practitioner. For without having necessarily to look up the original papers, a task made perfectly easy by the plan here adopted, the reader can often glean all the information he wants by the mere reference, which extracts for him the essence of each subject. Its claim then to be a "digest" is fully substantiated, and its utility to the "busy practitioner" is self-evident. Dr. Neale is entitled to the gratitude of the whole profession for so thoroughly and faithfully fulfilling his self-imposed task, at the cost of immense labour and sacrifice of time. It is, however, surely too much to expect of him that he will be able to continue the preparation of new editions or supplements which the progress of years must demand; and we would suggest that, when Dr. Neale from any cause finds himself unable to carry on this important work, it should be made a permanent one, and continued by some responsible medical society on the same lines and method as that laid down by him. Could this be managed, there would be secured for future generations the same facilities and advantages that we of to-day are enjoying, thanks to the indefatigable industry of a single man.

THE BRITISH DENTAL ASSOCIATION.

ON Saturday last the Southern Counties Branch of the British Dental Association held a very successful meeting at Hastings. Over fifty gentlemen, most of them members of the Association, assembled, and after a delightful ride to Battle Abbey, accompanied by the learned local antiquarian, Mr. T. H. Cole, M.A., who gave them a lucid description of that most interesting historical spot, returned to luncheon at the Queen's Hotel, and afterwards devoted the afternoon to scientific work in the board-room of the Hastings, St. Leonards, and East Sussex Hospital. Some preliminary business—including the election of Sir John Tomes, Dr. B. W. Richardson, Sir Edwin Saunders, and Mr. Smith Turner as honorary members—over, the new President, Mr. George Henry of Hastings, delivered a brief but admirably prepared address, in which, in terse and eloquent language, he dwelt with honest pride on the greatly improved position held by members of the dental profession as compared with that held by them a generation ago. The President spoke with fine feeling on the good relationships now maintained between the medical profession and that which he had the honour to represent; and, passing to the progress of dental science, he touched on a few of the latest and best advances. Papers were afterwards read by Mr. Leslie Maxwell, of Hastings, on "Pulpless Teeth," and by Mr. De Courcy Dickenson and Dr. Holloway on a case of Hæmorrhage after Tooth-extraction. Spirited debates followed each of these papers, and in the evening the members dined together, several representatives of our own profession taking part as visitors, and experiencing a hearty reception. Dr. Richardson proposed the toast of the evening, "Prosperity to the British Dental Association," to which Mr. Smith Turner responded. Dr. Trollope replied to the toast of "The Medical Profession," and Dr. Bagshawe, in singularly graceful terms, proposed "The Health of the President," Mr. Henry, who had won "the high esteem of his fellow-townsmen and of the members of the medical fraternity." His Worship the Mayor of Hastings, Alderman Bradham, in response to the toast of "The Mayor and Corporation," said, in commenting on the low death-rate of the place (a fraction over 11 per 1000 in a population of upwards of 60,000), that many would attribute this to the healthy situation of the town, its sea air, and the management of the Corporation, but he thought due credit ought to be given to the excellent medical skill of the professional men he saw around him and to their brethren in the locality.

THE LANCET.

LONDON: SATURDAY, JUNE 27, 1891.

THE profession, in its various associations, would do well to consider more seriously the question raised in a letter we published last week from Dr. RENTOUL on the proposed increase in the number of direct representatives on the Medical Council. The constitution of the Council may be looked at from two points of view—from the professional point, or from that of the public. In the weary years preceding the grant of direct representation members of the Council were never tired of saying that it did not exist for the profession, but for the public, and leaving it to be inferred that the then constitution of the Council was the best possible one. The right of the universities and corporations and their most distinguished members to solely constitute the Medical Council seemed as much a matter of faith with the happy holders of this pious opinion as the good old doctrine of the divine right of kings. It was assumed with delightful confidence that the only men who could guide the State and the public right in regard to the education and registration of the profession were those who taught medicine. Those who merely practised it were regarded as a lower order of beings altogether, and quite incapable of giving advice. This pleasant doctrine had an equally delightful corollary—that the universities and corporations should not pay anything towards the expenses of the Medical Council, but that all the expenses should be paid by the members of the profession. What so fit as that those who could not advise should pay those who could? Even the Crown nomination, which was originally meant to secure some representation of the plodding, paying profession that was to be supervised, was entirely alienated from this purpose, and given without exception to men, distinguished indeed and worthy, and capable of conferring lustre on the Council, but men of the official type, already highly over-represented in the Council, and bound hand and foot by the traditions and the interests of the bodies of which they were distinguished members. It is in this constitution of the Medical Council that the Lord President will find the explanation of its somewhat tepid and ineffective handling of great public medical questions. In regard to such questions, each of the twenty representatives of existing corporations and universities has to be satisfied that there is nothing in any given proposal to offend the *amour propre* of "his body," to imperil the interests of teaching and examining bodies, or to recognise a wealth of teaching power, outside the schools, in men engaged in practice, in workhouse infirmaries, and in dispensaries. Only when he thinks that the proposal is harmless does he bend to an obviously reasonable demand. The recent discussions on a larger training in practical midwifery and a larger use of workhouse infirmaries in Ireland were striking illustrations of what we are saying as to the faulty constitution of the Council and the over-representation of teaching and examining bodies. The Scotch Universities almost *en masse* resisted any demand for a proper clinical experience in midwifery, for the simple reason that the students wanting it would have to find it in other schools. It is only by the persistent action of the direct representatives that the scandal of attendance, anyhow, on six midwifery cases as a complete practical training in midwifery, has been slightly removed. Schools that were too large to feel this objection sympathised with schools that did feel it, and accepted the pleasant doctrine that that was no question for the Council of Medical Education, but for individual schools, which of course require what is convenient. If an accurate observer like Lord CRANBROOK can find time to watch the working of the Medical Council and the divisions on important questions, he will be satisfied of the substantial accuracy of our views. There are two remedies for this admitted evil, and the Council will never give satisfaction to critics till they are applied. The one is to reduce the number of representatives of corporations and universities by combining them. Bodies are conjoined now for examining purposes. There is no reason why they should not be conjointly represented on the Council. The other is by increasing the number of direct representatives, who would act with more independence and with less care about the bearing of every reform on every particular school or examining body. Pending these reforms the Government would do much good by giving the Crown nominations, or a considerable proportion of them, as they occur to men representing medical practitioners, and unconnected with the official cliques of the profession.

WE have received a "Manifesto of the Right and Liberty Defence League," which raises certain considerations as to the proper limits of that interference with individual liberty which is claimed in the interests of public health. The immediate cause of the manifesto is the adoption by a Midland Corporation of the provisions of the Infectious Disease (Prevention) Act, 1890, including the power to detain in hospital persons whilst suffering from infectious disease who shall have been removed there, and empowering the authorities to detain in such hospital, except for the purposes of burial, the bodies of any persons who may have died there of infectious disease. A number of points are raised in the manifesto. Power of removal to an infectious hospital under the Public Health Act, 1875, is objected to, and the uselessness and alleged cruelty of several other enactments are referred to; but typical amongst them, in so far as public health is concerned, stands the first provision we have quoted from the Act of 1890, and which, it is pointed out, converts "the infectious hospital into a prison."

We assume that it will be admitted that most of our laws involve some interference with the complete liberty of the subject to act entirely, and without any hindrance, upon his own opinion, and that all reasonable persons will concede the desirability of some controlling enactments. And if so, the main point that calls for consideration is the question whether our public health laws transgress in the sense of going beyond the limit that should rightly control interfer-

ence by a central or a local governing body which is concerned with the protection and promotion of the public health. The special powers to which we have adverted are very similar to other measures of interference with the individual which are already in force, and some of these will serve to illustrate the point under discussion.

JOHN STUART MILL maintained the right of every man to his own opinions, whatever they may be; but when he came to ask himself whether an equal liberty should be accorded to every man to act on those opinions, he only consented to discuss the point in so far as this liberty could be exercised by men "at their own risk and peril." He added that no one could pretend that actions should be as free as opinions, and he further laid it down that "the liberty of the individual must be thus far limited—he must not make himself a nuisance to other people."

But HERBERT SPENCER may perhaps be looked upon as the greatest champion for such views as are set forth by the more extreme of those who sympathise with the views of the Right and Liberty Defence League. He is no supporter of what he terms "impatiently agitated schemes for improving any sanitary condition by Acts of Parliament,' and he argues that "if sanitary administration by the State be wrong ..... then is sanitary administration by municipal authorities wrong also." And yet, even this writer admits that it is "evident" that it comes within the proper sphere of Government to repress "nuisances," and he adds that "he who contaminates the atmosphere breathed by his neighbour is infringing his neighbour's rights." Curiously enough, the term "nuisance," used by both these writers, and the term "injurious to health," are made interchangeable for the purposes of our public health legislation, and we may hence easily test the propriety of the provisions referred to in the manifesto in the light of the views expressed by the authors whom we have quoted.

And as to these provisions, we would, in the first place, point out that the power of compulsory removal to hospital is very strictly guarded under the Public Health Act. It can never be exercised except under the order of a justice, and he can only act on the certificate of a legally qualified medical practitioner; and further, unless the person suffering from infectious disease is lodged in a room which is actually occupied by members of more than one family. The removal from any room to a hospital can only be effected on proof that the sick person is "without proper lodging or accommodation." And surely if, according to HERBERT SPENCER, interference by authorities is permissible when a man contaminates the atmosphere breathed by his neighbour, and so becomes a nuisance to that neighbour, such interference cannot be uncalled for when it is proved to a justice that the contamination in question gives to the air, which is common property, a harmful and deadly character, or when the nuisance in question becomes one which is not only injurious to health, but even inimical to life itself. The manifesto we have referred to talks of the removal of "patients from commodious houses, where the sufferer and his friends [have] already every advantage of isolation. Our answer is that no such provision is embodied in any general statute in this country, and that the actual provision in force is so curtailed and safeguarded that it can only deal with wrongs towards neighbours and friends which involve the grossest violation of liberty, and which no man has a right to claim the right to perpetrate, to the obvious detriment of his fellows. The other clauses referred to in connexion with infectious hospitals are of a like sort. When those who are sick of infectious fevers are removed to hospitals which have been erected and maintained at the public expense, it is for the protection of the public health that such a step is taken; and it would indeed be intolerable if all this costly protective action could be frustrated merely because some convalescent claimed the right to diffuse the contagium of his disease amongst his fellows the moment he found himself capable of again walking about amongst them, or because it pleased the fancy of people to carry back to the very houses and tenements from which the danger of infection had been removed, bodies of the dead still capable of spreading fatal disease to those coming in contact with them. And yet claims of this sort are made on the ground of so-called "right and liberty."

GYNÆCOLOGY has unfortunately ever been the fertile field of fads and fashions, and sometimes even the battle-ground of antagonistic methods of treatment. We need scarcely refer to many of the fashionable procedures which, for a time, held sway in gynæcological practice. The history of the slitting up of the cervix uteri, which was for many years considered an essential operation in all cases of sterility, is well known. Then followed the sewing-up operation, which became the rage amongst a class of practitioners. Both of these have, however, declined in favour, and are performed but seldom by scientific gynæcologists. Nor need we direct attention to the discussion going on in certain quarters as to removal of the uterine appendages, the use of electrolysis in uterine fibromyomata, or to the emulation manifested in several societies devoted to diseases of women in devising varieties of pessaries and other gynæcological instruments which are considered so necessary by some practitioners and discarded with equal vehemence by others.

We willingly admit that practitioners in this particular department are filled with a desire to improve the health and ameliorate the sufferings of women, and that the best feelings of humanity urge them on to devise new and improved methods of treatment for the welfare of their patients. Very often, however, the methods recommended are highly empirical, being destitute of any scientific basis, and, indeed, are often founded on very doubtful hypotheses. For many of the methods splendid results are claimed, and elaborate series of statistics are produced to demonstrate their efficacy. Those who employ any narrow system of therapeutics apply an amount of misdirected activity to the prosecution of their work without exercising their judgment as to the various factors that contribute to the result. They impute their success to the drugs employed or the methods of treatment directed to the generative system, forgetful of the circumstance that the majority of their patients possess a strongly marked susceptibility or affectability of the nervous system, and that much of the satisfactory result may be accounted for through the influence of mental impressions. We must, therefore, in all such cases remember

the teaching of BACON, that it is necessary to "observe patiently, experiment cautiously, and generalise slowly." This caution, we think, is necessary at present in reference to the subject of masso-therapeutics in gynæcological practice. We have received from many quarters, especially from the Continent and America, very glowing reports as to the efficacy of this treatment in "producing the catamenial flow," "in diminishing the suffering attendant upon dysmenorrhœa," and "in cases of sterility." It is also stated to be very efficient "in prolapsus uteri, subinvolution, chronic peri- and para-metritis, and uterine displacements." Quite recently, the reader of a paper at one of our societies, in giving the results of treatment in about 200 cases of diseases of the uterine appendages, remarked that "pelvic adhesions may be frequently broken down by a system of massaging the parts." We do not wish to scoff at these claims, but, while frankly admitting the efficacy of active and passive movements in many surgical and medical cases, we think a word of warning is needed in regard to its too extensive and indiscriminate use in gynæcology, especially in cases in which a vagueness exists as to the exact pathological condition present, as we have observed in many of the records of reputed cures by this method of treatment. In this, as in all narrow systems, too much is claimed for it. As we have indicated, it is lauded as of extraordinary efficacy by its enthusiastic adopters in nearly all diseases of women having a pelvic origin. It has also been employed "with great benefit" in many of the unaccountable affections which were formerly supposed to have a uterine source—as the term *hysteria* itself implies—and in which there is found that common combination of neurotic phenomena included under that designation. Because of this too extensive claim made for massage of the pelvic organs scientific gynæcologists have been rather cautious in adopting it even in certain cases, where it is doubtless an agent of some utility, requiring, however, special study and experience for its proper employment; and we can easily understand the unwillingness of some to follow a system which in its details is somewhat tedious, and in many respects disagreeable to the patient and difficult for the physician, or even their readiness to sneer at it altogether when they find among the directions given for the treatment of chronic catarrh of the uterus such instructions as "breech beating—standing, trunk rotation—astride sitting," &c. We feel certain that all careful practitioners of gynæcology in this country are disposed to accept assistance in the treatment of their patients from any therapeutic system having a scientific basis, but it seems, we are glad to say, doubtful if gynæcological massage, even to a limited extent, will for any length of time be in fashion amongst us.

THE hearing of the promoters of, and of those who are opposed to, the formation of a Teaching University for London, with powers to grant degrees in Arts, Science, and Medicine, has been fixed for Monday next before a committee of the Privy Council. This question, which has been dragging along for the past five years, is therefore about to be settled. The only opponent to the case of King's and University Colleges to form the basis of a Teaching University in London, so far as Arts and Science are concerned, is the existing University of London, and as the Senate and Convocation of this University have failed to agree on any scheme for a Teaching University under their control, there will probably be but little difficulty in the Teaching Colleges obtaining a Charter so far as these degrees are concerned. The medical problem is much more complicated. The London medical schools (outside those of King's and University Colleges) have presented a case, insisting on their adequate representation, but as ten seats on a council of thirty are to be placed, either directly or indirectly, at their disposal, we cannot see that anything more liberal can be offered on their behalf in the proposed Charter. The real difficulty is in the position of the Royal Colleges of Physicians and Surgeons, to whom have been allocated six seats on the Council in the Charter of the proposed Albert University, should they elect to become a constituent part of the proposed University. This will leave four for the direct representatives of the medical schools. As the promoters of the Albert University insist on an adequate representation of teachers on the Council, and that these should consist of active London teachers only, it would seem to be difficult to admit the Fellows of the Royal College of Physicians and the Council of the Royal College of Surgeons—who represent various interests other than those of the teachers of the London Medical Schools—to a representation in the Faculty of Medicine, inasmuch as the Faculties of Arts and Sciences will be composed of London teachers only. If the Royal Colleges could arrange, in conjunction with the medical schools, to send as representatives of the Faculty of Medicine only those members who were actively engaged as teachers in the London schools of medicine, it would seem that a desirable compromise might be arrived at. The cases for and against the proposed Albert University have been submitted to the Privy Council, and we sincerely hope, as the result of the hearing next week, that the Lords of the Privy Council will adopt a workable scheme which will relieve the London medical student from the disadvantages under which he is now placed. The Royal Commissioners have declared that the present position "is injurious not to the men themselves only, but to the public;" and it is of the utmost importance to the profession that the jealousies of the various bodies interested should not be allowed to impede a proper settlement. We trust that the Privy Council will embrace this opportunity, which seems to us the only method of remedying the "medical grievance," and will be able to arrange on a just and equitable basis the various claims of King's and University Colleges, as institutions dealing with Arts and Science as well as with Medicine, the London Schools of Medicine and the Royal Colleges as licensing corporations; but the whole question, in regard not only to London, but to the provincial schools and the existing Universities, will be argued by counsel during the forthcoming week.

AT a meeting of the managers of the Central London School District, on the 8th inst., Mr. Sydney Stephenson was, on the motion of Mr. Lile, C.C., reappointed for one year to the charge of the ophthalmic cases in the school at Hanwell, W. At the same meeting Mr. Stephenson's report for the past year was read, and ordered to be printed for circulation.

Annotations.

"Ne quid nimis."

DIET AND ANIMAL TEMPERATURE.

A QUESTION has been put to us by a correspondent—Mr. Walter Fentem—whether the animal temperature of persons who subsist on a vegetable diet is lower than that in animal or mixed feeders. The inquiry has never been investigated in the human species on a sufficiently comprehensive scale to be of any value, but such comparative facts as throw light on the matter tend to indicate that vegetable feeders, amongst the lower creation, have a high temperature. Dr. John Davy, brother of Sir Humphry, and one of our keenest physiological observers of a past day, was amongst the first to make comparative observations of the temperature of different animals in their normal state; and to a certain extent John Hunter, Pallas, Despretz, and Samuel Metcalfe carried out the same research. In 1869 Dr. B. W. Richardson, in one of his lectures on Experimental and Practical Medicine, classified the results of most of these previous authors, and tested them by a new series of direct observations. His table of mean results showed that vegetable feeders have a high temperature. The sheep gave a temperature of 104°; the goat of 104°; the pigeon of 108°; and the common fowl of 108°. The rabbit showed 103°, whilst the dog and the cat, animal or mixed feeders, showed 102°. But some herbivora were comparatively low; the ox, for example, 101°, and the horse 100°. The differences here stated were supposed by the last-named observer to depend on the cutaneous covering of the animal more than on any other cause. In the case of the pigeon, on which this author made ninety-four observations, the high temperature was attributed to the non-conducting character of the feathers, a marvellous protection to a swift-flying animal in a cold atmosphere. In man, from 100 observations, he came to the conclusion that in a strictly natural state 98° F. was the truest standard. These researches are useful as comparative studies; still, it is an open question whether in man, or in any species of animal that can live on a mixed diet, there is a variation of temperature, according to mode of diet; and it would be a good work to inquire on a large scale if, under a purely vegetable form of dietary, the temperature in man is reduced. Our correspondent informs us that in him (a healthy man) and in his wife (a healthy woman), both in the prime of life, the temperature now ranges from 96° to 97·4° F. He for three years and a half, and she for two years and a half, have been total abstainers from alcohol, and have subsisted on fruit and vegetables, with addition of "butter, cheese, milk, eggs, and a little fish." Previously to adopting this system his temperature had never fallen under 98° "in so far as he remembers," and he therefore is inclined to the view that under his new regimen he lives as healthily as before, at a lower expenditure of energy. If such prove to be correct, and if it should be demonstrated that a minimum animal diet (for our correspondent, be it observed, is not strictly a vegetarian) will support life efficiently under reduced combustion and reduced waste of material, a valuable as well as curious fact will be added to our practical knowledge. Evidently there is here open a fine field for a patient, perfectly unbiased, and truthful investigator.

THE POST OFFICE BILL.

THE Postmaster-General has introduced a Bill into Parliament with the object, as he explains, of making certain concessions to the public and to the newspaper interest in relation to the business of his department. The point of greatest public interest in his measure is the proposed abolition of the charge for redirecting letters. This is a boon which will appeal directly to the public, since everybody is liable at one time or another to be the recipient of a redirected letter. Less widely appreciated, though scarcely less important, will be the proposed new regulations concerning the transmission by post of newspaper supplements. But with characteristic official zeal Mr. Raikes proposes to make the granting of these small concessions the occasion of taking power to fix the maximum weight of a newspaper which may be transmitted at newspaper postage ratio at a figure to be settled by himself and the Treasury. We are glad to see that the very strong expression of opinion which was uttered by the deputation that on Tuesday last waited on the Postmaster-General has not been without its effect. It is now officially announced that no attempt will be made this session to pass a Bill on the subject containing controversial matter, and inasmuch as the proposed limit upon the weight of a newspaper, even though fixed for the present at 1 lb., will undoubtedly afford material for abundant controversy, we may take it, as we hope, that no attempt will be made to force this clause through Parliament.

INFLUENZA IN THE SHEFFIELD WORKHOUSE.

A REPORT has been prepared by Dr. Lewis Hunt on the prevalence of influenza in the Fir Vale Workhouse, Sheffield. Between April 11th and May 29th no less than 492 cases were under treatment there, but 193 of these cases were admitted from outside. After giving some account of the prevalence, Dr. Hunt gives prominence to four points. First, the large number of people attacked simultaneously; secondly, the wide separation of centres of origin; thirdly, the absence of any marked period of incubation; and fourthly, the rapidity with which the poison was eliminated from the system. And, apparently basing his view on the first three points adverted to, he comes to the conclusion that the disease was not contagious, but was due to some atmospheric or miasmatic influence. This question of origin is one of the most prominent at the present moment, and it is therefore interesting to look back to the data on which the view enunciated is based. It appears that on April 11th two persons sickened. Two days subsequently—namely, April 13th—three more came under treatment, but only two of these belonged to the workhouse; and on April 14th three boys sickened. This group of six workhouse attacks in the period from April 11th to the 14th was scattered over all parts of the workhouse. By the end of the week there were 105 under treatment, but how many of these belonged to the 193 outsiders is not stated. If influenza, as some allege, has a brief period of incubation, we hardly see, in these data, proof of an absence of personal infectiveness, and this the more because isolation in any strict sense was not carried out; indeed, we are told that the nurses mingled freely with the other inmates. Then, as regards simultaneous attacks, we find the greatest number involved in any one day was twenty-five on May 11th. But this is a month after the prevalence within the workhouse had commenced; it was, indeed, a date when more than twenty-five could easily be conceived as having received the poison otherwise than through some atmospheric condition. And lastly, the report does not contain the evidence on which the view as to the absence of a period of incubation is based; neither does it explain that the first attacks which came under treatment had no opportunity of coming into contact with antecedent attacks outside. Whilst we are, as yet, by no means prepared to deny that some general aerial diffusion of the contagium of influenza may be in operation, it seems evident that the very decided

attitude adopted by Dr. Hunt as to the absence of personal infectiveness must be largely based on data which are not embodied in the report he has issued.

LIBEL OF A LOCUM TENENS AND ITS CONSEQUENCES.

THERE is need of much patience and mutual respect between the practitioner who goes out for a much-needed holiday and the *locum tenens* whom he engages. Where these feelings are not in the ascendant the consequences are apt to be disagreeable and inconvenient. An illustration has just occurred in an action heard before Mr. Justice A. L. Smith, in the Queen's Bench Division of the High Court of Justice, in which Dr. Edward Semple, of Park-street, Grosvenor-square, W., was the plaintiff, and Mr. James William Orr, of Wollaston, Northamptonshire, was the defendant. Dr. Semple had accepted duty as *locum tenens* for Mr. Orr, but, after a week's work, declined to continue it owing to the discomforts of the defendant's house. He thereupon telegraphed to the defendant to that effect, and also to a medical agent for a substitute. Thereupon the defendant wrote letters to the agent reflecting on Dr. Semple's competence and conduct. The expressions were so strong that Dr. Semple naturally felt bound, in self-vindication, to commence an action for libel. In the course of the trial an arrangement was happily come to by which the defendant admitted having written under a sense of irritation, and thinking the statements true. He allowed that he had been mistaken, and unreservedly withdrew every imputation, which he regretted having made, and expressed his willingness to submit to a verdict and judgment for £125 and costs. The judge expressed himself impressed with the singularly good way in which the plaintiff had given his evidence, and added, amid the applause of the court, that he left the court without the slightest taint on his character either as a gentleman or a professional man. The action will not be without its uses at the commencement of the holiday season if principals and their substitutes study it and get from it mutual lessons.

OPERATION FOR CEREBELLAR TUMOUR.

IN the *Boston Medical and Surgical Journal* a case is recorded in which Drs. Bullard and Bradford made an attempt to remove a tumour of the cerebellum, an attempt which, unfortunately, was not successful. The patient was a child aged six years and a half, who during the year previous to the time at which she came under observation had suffered from attacks of vomiting, occurring at various intervals, but usually at the rate of about three a week. These attacks were preceded by dizziness. During the last three months of the year referred to she had been considerably worse than before, the change in her condition being coincident with an attack of influenza about Christmas, 1889. For six weeks she had been gradually losing power in her right lower extremity. When first seen, in April, 1890, there was no objective appearance noted of any consequence except a staggering gait and somewhat dilated pupils, which, however, reacted to light. When the patient was next brought to the hospital by the mother, a history was obtained of transient and varying paralysis of the right arm, and of a passing paresis of left arm on the previous day, with, for the first time, inability to feed herself. On admission to the hospital there was no evident paralysis either of motion or sensation. No examination of the optic discs seems to have been made until a fortnight after her admission, when papillitis was discovered in both eyes, more marked in the right. During the next few weeks her condition became gradually worse, until finally there was complete blindness in both eyes, paresis of both upper extremities, more marked in the right than in the left, although the left showed a greater amount of incoördination, and weakness of both lower extremities (right more than left), with ankle clonus and exaggerated knee-jerks. Operation was performed two months after the child's admission, but the patient died of hæmorrhage from an opening, apparently congenital, in the occipital bone communicating directly with the torcular Herophili, before the operation could be completed. On trephining after death over this point and afterwards enlarging the opening with bone forceps a tumour mass was found apparently in the right lobe of the cerebellum, which was found to be tubercular in structure; but as a necropsy was not permitted, a full examination of the diseased organ was impossible. The case is an important one, being one among the few cases of cerebellar disease in which operation has been attempted, and its importance is even emphasised by its unfortunate *dénouement*, as it shows a new, although it is to be hoped a rare, danger in head operations. It is to be regretted, however, that the authors do not go more into detail as to localisation in this case. The subject of cerebellar tumour is certainly discussed at considerable length at the conclusion of the report of the special case; but it seems to us that it would have been of greater interest if we had been informed where it had been intended to trephine had the unforeseen not happened, for in our present ignorance as to cerebellar localisation every case in which an attempt is made to determine the locality from symptoms, more especially if this is followed by surgical measures undertaken for the purpose of removal of the tumour, should be fully recorded. So far as we can gather from the report the tumour in this case was found on the right side—the incompleteness of the examination is, of course, a great misfortune—and the paresis was more marked on this side; yet in the general remarks which are appended by the authors we are informed that the symptoms due to pressure on the pyramidal tract are usually hemiplegic, and that the weakness is on the side of the body opposite to the lesion. If the tumour exerted its effects as if it were on the left side—we note that it did extend forward and to the left—although it was accessible superficially only from the right, it is important to recognise this fact, especially if the general statement referred to be accepted, and it is with reference to this point especially that the report is wanting in that completeness which is desirable.

FOR HOW LONG CAN DEPRIVATION OF SLEEP BE ENDURED?

THE nature and cause of sleep are still a mystery. We say it is due to exhaustion of the nervous system, which requires rest in order that repair may be effected; but why should not this be accomplished during the waking state? Some parts of the nervous system require no such thing as sleep. The movements of respiration, the action of the heart, the peristalsis of the intestines continue throughout the most profound slumber. Why, then, should the brain require in health five or six or more hours of absolute repose to make up for lost energy? Dr. Caffie considers that storage of brain energy is its final cause. But it might be urged that those who want most sleep are the dullards of the race, not the active and the alert; the gentleman who retires to his couch at ten, and, rising at nine, does nothing all day; not the Hunter who works till midnight and rises at five. Preyer thinks the oxygen of the blood is used up in the waking hours, and that we require sleep to obtain new stores of that potent stimulus. Others think it a cosmic process associated with the eternal alternation of light and darkness. Whatever may be the explanation we give of the supervention

of sleep, it is certain we cannot do without it; and though patients and nurses often say they have not slept a wink all night, or have heard every quarter strike, we may be sure that such a state of watchfulness cannot be maintained for more than a night, or perhaps two. Lord Brougham once experimented on himself to test how long he could do without sleep, and commenced, if we remember rightly, on a Monday morning, went through his professional duties, sat up through Monday night, resumed his work on Tuesday, and got through the day pretty well. At night, however, he felt sleepy and tired, and to keep himself awake determined to dictate to an amanuensis. He began walking about the room, but on seating himself instantly fell asleep. That which overcame so hard-headed a Scotchman as Brougham, meaner men may reasonably acknowledge as their conqueror. A similar experiment has recently been reported from Detroit, where six men entered into a competition to test their endurance of deprivation from sleep for seven days, commencing at noon on Monday, March 30th. Four of them dropped out or off before Thursday; two continued till Sunday. One of these, Townsend by name, a long-distance walker, began to weaken at ten on Sunday morning; he walked like a man asleep, and reeled about the floor. An hour later he complained that the floor had all at once grown very steep, and that he could not keep on climbing. He stuck to his task, however, till midnight, when he leaned against the wall for a moment's rest. He was so tired that he fell to the floor. The shock roused him, and he begged the watchman to keep him awake, but it could not be done. A few minutes later he threw himself on the floor and instantly slept heavily. The last competitor, Cunningham, was left alone with a twelve hours' vigil before him, which he occupied with walking, singing, dancing, and shouting. Many spectators assembled to see the last hour pass. "Why did you stop the clock?" he shouted, as the minutes slowly passed. At length it was over, and he was conducted to the stage and introduced, but before the introduction was over he was sound asleep. Cunningham lost eight pounds and Townsend six in the match. The men were allowed to sleep in fifteen-minute naps at the conclusion of their several vigils, and are said to have suffered no permanent ill. Deprivation of sleep is an old Chinese punishment, and it is evidently a severe trial. In insanity prolonged vigilation is not an uncommon symptom, and probably many cases are known to alienists whose experience upon the point it would be interesting to obtain.

THE POISON OF DIPHTHERIA.

THE subject of diphtheria has lately occupied a large share of attention, especially in regard to its etiology and its pathology. The unity of croup and diphtheria is becoming more and more accepted amongst English observers, although French and German authorities have long classified them as one disease. An interesting paper on the diphtheritic poison and its mode of action by Professor Oertel appears in the *Deutsche Medicinische Wochenschrift*, No. 45, 1891. He maintains that the therapeutics of diphtheria ought to find a scientific basis in the bacteriological discoveries concerning the etiology of this disease. Having inoculated some animals in the muscular tissues with diphtheritic membrane, Oertel found that the animals generally died in thirty or forty hours. The lesions discovered on post-mortem examination consisted in a hæmorrhagic inflammation of the muscles, infiltration of small round cells in the viscera, and small hæmorrhages in the serous membranes. He did not, however, succeed in finding the characteristic bacilli in the tissues or organs of the animals experimented on. Oertel concluded from this that in the case of the general diphtheritic infection the poison is not produced in the tissues and organs by the pathogenic bacteria, but that it is derived from without, and that when it has once entered the organism it is reproduced by means of fermentation, and by a metamorphosis of certain organic combination. According to Oertel the diphtheritic poison always produces like effects, and there is no occasion to distinguish a local infection from a general one. The results of an injection of diphtheritic poison varies according to the quantity and strength of the dose administered, and according to the site and structure of the organs selected. The first effect of the poison consists in the destruction of cells. The second effect is the formation of a hyaline material at the expense of the cells. When the virus is introduced into the deeper tissues necrotic foci are formed, which unite with the superficial lesions, so producing considerable infiltration in the tonsils, uvula, and the soft palate. As in the false membranes, notably in those occurring in the trachea and bronchi, the specific organisms do not develop, and the poison rapidly loses its pathological activity, owing to the chemical changes which it undergoes in the tissues. In the cervical and bronchial glands the same alterations are produced as in the mucous tissues, and similar changes may also be noticed in the spleen, stomach, intestine, and mesenteric glands. When the disease has been very acute, the lungs, heart, liver, and kidneys do not present these characteristic lesions; they are simply the site of local inflammation, hæmorrhages, and collections of small round cells. The researches of Oertel have been confirmed by those of Löffler, Roux, Yersin, and Brieger. Oertel supports the treatment introduced by Roux and Yersin, by carbolic acid in the form of inhalations.

THE LEPROSY COMMISSION.

DR. BEAVEN RAKE and Dr. G. A. BUCKMASTER, members of the Leprosy Commission now in India, have been working during the past months in the Bacteriological Laboratory at Simla, which was specially built for the use of the Commission by the Indian Government. The greater number of the pathogenic bacteria have been artificially cultivated; but with reference to the bacillus lepræ, both Hansen, who discovered the organism in 1880, and Neisser, who verified this, failed in this direction. Among subsequent observers, Bordoni-Ufreduzzi claims to have succeeded in culture experiments on salt, glycerine, peptone, serum, and glycerine agar; on gelatine and potato his results were negative. Dr. Rake and Dr. Buckmaster commenced their experiments at Almora on April 14th, using the fluid of a blister over a leprous tubercle of the forehead as bacillary material, and blister fluid from normal skin of the back of the same leper as a cultivating medium. This was kept in sealed vaccine tubes at a temperature of 98° F. Continuing this experiment at Simla on May 2nd, a turbidity and growth of leprosy bacilli were obtained. The original tube was now used to inoculate bouillon gelatine and agar-agar. On all these media the bacillus freely flourishes at a temperature of 70° F. Lastly, these observers state that the bacillus lepræ is motile—at any rate, in its period of early growth. Experiments in animal inoculation are in progress.

THE OUT-PATIENT ABUSE AT GUILDFORD.

THE out-patient abuse is everywhere, but it has a special development at Guildford. It involves the paying of home visits to patients. We reported a few weeks ago a sharp difference of opinion on the merits of this system, as shown by the almost equal division of a special committee on the question of its continuance. The report of this committee has led to a very animated discussion of the question in a special court of governors. The result has been a compromise, which, however, contemplates the abolition of the

home visiting of patients at the end of five years. This is too long a time to give an admitted evil. But the objectors to it must be satisfied, on the whole, with the result. There is something in the historical fact that the hospital absorbed the Guildford Dispensary and undertook its obligations. We congratulate all the friends of hospitals, who are at the same time favourable to the cultivation of the self-respect and independence of the working classes, on the prospect of an end being put to a bad arrangement. These classes have no more reason to depend on charities for their ordinary medical attendance than for their daily food and clothing. By its clubs, by provident dispensaries, and by moderate charges the medical profession adapts itself to their case, and is at their service night and day as no other profession is. It should be their care to see that the profession is decently, if not adequately, paid for its indispensable work. The hospital ought to be reserved for severe cases, medical and surgical.

THE TREATMENT OF ANTHRAX.

PROF. KOSTURIN and Dr. KRAINSKI publish in the *Vrach*, in the form of a preliminary note, an account of some experiments they have made on the treatment of Siberian sore or malignant anthrax by means of the toxines of putrefying fluids. They had previously published somewhat similar researches on the effect of certain toxines on tuberculosis, and felt sufficiently encouraged by their results to proceed with the experiments on anthrax. Most of these were carried out on rabbits. The anthrax virus was obtained from a professor of the veterinary institute in the form of a mother culture, from which fresh cultures were obtained as required by sowings on meat-peptone agar, and mixture with sterilised broth, until the latter became quite turbid. About half a cubic centimetre of this injected under a rabbit's skin always caused the animal s death in from thirty-five to fifty-five hours. The substance used as an antagonist to this virus was the extract or broth of fresh meat, allowed to putrefy at a temperature of 16° C. for from fifteen to forty-five days without the free access of air. This putrefying broth when injected under the skin of a healthy rabbit in the proportion of 1-850th of the animal's weight produced a marked rise of temperature, 40·8° C. being the maximum, which lasted for about two days, after which the normal con. dition was regained. The general result of the experiments was that the injection of putrefying broth five or six hours after the introduction of anthrax virus in all cases retarded death, and in some, especially where the dose of virus had been a small one, and when that of the remedy was repeated two or three times at intervals of a few hours, entirely prevented a fatal result, the animals recovering completely. Two experiments were made with sheep, 0·2 cc. of the culture of the anthrax virus being introduced into each and also into two rabbits for purposes of comparison. Three hours afterwards sheep No. 1 was given 0·5grm. putrefying infusion of meat a fortnight old, and sheep No. 2 a similar quantity of broth a fortnight old. Rabbit No. 1 was not treated; rabbit No. 2 was given 0·1 grm. of the broth. The results were as follows: rabbit No. 1 died in 60 hours, rabbit No. 2 in 136 hours, and sheep No. 1 in 100 hours, and sheep No. 2 in 66 hours. The necropsy of all the animals showed that they had died from anthrax. The unsatisfactory result here is ascribed by the authors to the very small quantity of putrefying broth injected. In the case of rabbit No. 2 the good effects of the treatment are apparent, but as it was kept in the same hutch as No. 1 it is very probable that it became reinfected. From this and some other experiments it was evident that animals undergoing treatment must be kept in separate cages. It is a pity that further experiments were not made with sheep; still, enough has been done to indicate a possibility of success, especially as the remedy does not appear to be of itself a very serious source of danger. Some attempts were made to test the effects of pure cultures of sarcinæ and of putrefactive bacteria, but entirely negative results were obtained; consequently the authors think that the antagonistic effects of putrefying broth or infusion of meat to anthrax, and perhaps other infectious diseases, do not depend on the bacteria contained in them, but rather on toxins or chemical products of putrefaction. Another important observation was made—viz, that when the putrefaction was allowed to go on with free access of air, the product had little or no power of arresting the progress of anthrax. In order to show the antagonism of putrefaction extracts to anthrax, cultures of the latter were mixed with putrefying broth, and though the anthrax still continued to multiply just as it ordinarily does, injections of this culture were found to be innocuous. The authors are now engaged in testing the effect of putrefaction toxines on the diphtheritic process, and a further paper on the subject may be looked for.

SOME RISKS OF RAILWAY TRAVELLING.

NOTWITHSTANDING assurances to the contrary, such accidents as the recent collapse of a bridge at Norwood Junction cannot but arouse in the minds of travellers an uneasy suspicion respecting the stability of other similar structures on the Brighton and other lines. This in itself is an evil. No doubt there are many persons of too steady nerve to be disturbed by such considerations, but there are many more to whom such dread is, in the circumstances, a constitutional and injurious necessity. The journeys by rail with which the days of so many business men begin and end are probably not the least trying of their occupations. The hurried rising, the hasty morning meal, the rush to catch a train, the same hurry in the evening, cannot fail to add materially to the nerve strain imposed by the numerous and anxious duties of a busy life. Thus it must often happen that the freshness of country air so desirable in the interests of a young family is purchased at somewhat heavy cost by the harassed parent. Railway companies, it must be allowed, have done and are doing much to relieve, by compensatory additions to personal comfort, this unavoidable nervous tension. It is almost needless to point out the incompleteness of all such compensation so long as the vital condition of security remains in doubt. We therefore learn with satisfaction that the Brighton Railway Company, while confident of the practical safety of their line, have agreed to establish the same confidence in the public mind by adopting the recommendations made to them at the recent Board of Trade inquiry.

THE AFTER-CARE ASSOCIATION.

THE object aimed at by this Association, that of befriending poor women discharged from lunatic asylums, may fairly be classed among the deserving purposes of public charity. They include the formation of a convalescent institution and of cottage homes for persons recently recovered from mental illness, assistance in the form of money or clothing, and aid in obtaining suitable employment. In the circular issued by the Association regret is expressed that no single convalescent home is specially designed and available for persons recovering from mental derangement. We are rather of opinion that the Association would not be wisely guided in seeking to make good this omission. The return to health of a diseased brain is but too apt to be retarded by such half-sound companionship and kindly-meant sympathy as a home of

this description would afford. Bracing, but not ungentle, contact with active work, and with minds occupied in daily duty, would be much more likely to refresh and energise a still feeble intellect. Not aggregation, but dispersion—by boarding out, for example,—is here called for. It is obvious, too, that grants of money and clothes must be shrewdly administered. We sincerely hope that the Association will treat such matters as these with due consideration, and will so direct its meritorious purpose as to prevent all possibility of perversion and abuse. Seeking, as it now does, but a very moderate contribution from the national alms givings, it should not plead in vain for that help which has long been freely rendered to the victims of purely physical suffering.

TESTIMONIAL TO DR. LIÉBEAULT.

DR. LIÉBEAULT having announced recently his intention of retiring from active professional work, and of taking a well-earned repose, it occurred to many members of the profession in various countries that that occasion would afford a suitable opportunity of offering some testimony of their admiration for, and recognition of, his valuable work. An appeal was accordingly directed to all those medical men who had benefited by the instruction imparted by Dr. Liébeault, and was signed by many medical men in England and Holland as well as in his native land. Dr. Lloyd Tuckey of London had charge of the subscription list in this country. May 25th was appointed for the presentation, and a large gathering of medical men took place at Nancy on that occasion. In the morning Dr. Bernheim gave a demonstration of the doctrines of the Nancy school of hypnotism, and in the evening M. Dumontpallier, physician at the Hôtel Dieu de Paris, presided at a banquet in honour of Dr. Liébeault. He presented Dr. Liébeault, in the name of the International Committee, a magnificent bronze ornament (David and Goliath), and also handed to him an album containing the photographs of the subscribers to the testimonial fund. A considerable sum of money remained in the hands of the committee; and Dr. Liébeault having expressed the desire of using it for some scientific work, it was decided to found a periodical prize in aid of works published on hypnotism, to be called the "Prix Liébeault."

A NEW THEORY OF CHLOROFORM SYNCOPE.

DR. KIRK of Glasgow read a paper last year before the Medico-Chirurgical Society of Glasgow, in which he advanced what purported to be a novel explanation of heart failure occurring during chloroformisation. This lecture has now been enlarged and issued in book form with Dr. Kirk's views elaborated. Prefacing his own investigations by a review of the work of others, he divides the contending factions in the chloroform arena as those who, like Syme and Simpson taught, "give the patient good chloroform and plenty of it," and "put the patient as quickly as possible under a strong and overwhelming dose of the poison"; and those who see extreme danger in such a plan, and would court safety in dosimetric methods and minimal doses secured by the use of a drop bottle. Dr. Kirk's theory starts from the hypothesis that there must be an effect produced by chloroform vapour upon the mucous membrane covering the pulmonary area, and that this action is associated with the effects directly due to the chloroform dissolved in the blood and floating in the circulation. If there be this action on the pulmonary tissue, the chloroform may be regarded, we are told, as two forces acting upon two several points, one without, the other within the circulation, and the phenomena occurring during the administration of the anæsthetic are to be ascribed to the action and reaction of these forces, and to the varying degree of intensity with which they operate at different stages of the inhalation. The first force, or that due to chloroform's action upon the pulmonary mucous membrane, soon attains its maximum of intensity. This action is the ordinary anæsthetic effect of the agent, and causes retardation of the blood-flow. Dr. Kirk compares it to the effect produced by shutting off a large vascular area by a tourniquet. There is, however, we are taught by the new theory, a corresponding reaction in the case of either force, so that when the vapour is withdrawn, the effects (retardation of blood stream, diminished heart's action) are suddenly reversed—"a violent rebound or whirl of the circulation terminating in its most pronounced form in syncope.' This, according to Dr. Kirk, is the way in which primary heart failure under chloroform is brought about. It cannot be said that there is any satisfactory experimental proof of these statements, and this Dr. Kirk freely concedes; but he thinks two experiments made by him on a cat lend strong corroborative testimony to his views, and he further believes that careful observations upon patients when chloroformed will also substantiate his position. The deductions at which Dr. Kirk arrives, whether his theory be right or wrong, are that since dangerous reaction follows when the effects of the vapour upon the pulmonary mucous membrane are reversed, it is perilous to lessen the quantity of chloroform given until the blood is so far saturated as to bring about a kind of equilibrium between the "external force" and the "internal force." This being so, we are urged to maintain a deep anæsthesia by using "plenty of chloroform." It will be seen that Dr. Kirk, although a disciple of Syme, differs from the conclusions of the Hyderabad Commission in that he believes most thoroughly in the existence of primary syncope, and explains its absence in the cases dealt with at Hyderabad by the fact that they were chloroformed after the manner of Syme, who used "plenty of chloroform." He, however, repudiates the conclusions, and says, "The Commission has made matters worse than before, for they have declared that death from chloroform is certainly preventable without having in the least shown how this consummation is to be attained." Dr. Kirk proposes to remedy this omission by directing the chloroformist to use his narcotic with no niggard hand, and to accept pallor rather as an indication for "more chloroform" than the usual view of its meaning, the danger of an overdose.

DIET FOR INVALIDS.

THE importance of a suitable and sufficient dietary even in health is too obvious to require assertion. In sickness it is a no less essential condition of endurance and recovery. The scope as regards variety may be more limited, but there is practically no limit as to nicety in preparation. The primary object, prevention and repair of tissue waste, is attained by skilful attention to details of cookery as much as by judicious choice of materials. Appetite has to be tempted, digestion suited, assimilation and elimination maintained effectually and without irritation—in short, nutrition and satisfaction are as needful to success in treatment as they are often difficult of attainment. At the same time it is well to note that great elaboration is seldom requisite or advisable. Simplicity, care, and common sense are supreme in the invalid kitchen. Where they control operations, and means allow due scope for their exercise, as happily they do in many households, the patient may congratulate himself at least on some degree of personal comfort. It is otherwise with the poor. Here, indeed, thrift and judgment will accomplish much, but these unfortunately are not to be relied upon. The

simplest kitchen rules, the plainest things in diet, are only too liable to misunderstanding and misuse. Rough and ready are the methods, equally rough but unready and unappetising the product, unsuccessful the nutritive result. It is not poverty alone which must be blamed for this; ignorance has even more to do with the matter. A teacher is needed, and one possessed of some patience and judgment. Here is an opportunity for district nurses, most of whom, it is satisfactory to note, have some skill in the preparation of invalid food. District visitors, church relief committees, and others engaged in similar work, would also do well to instruct their local poor in this most useful form of knowledge. Without such aid the visiting practitioner will often advise in vain, and lose (as he now does) by mere starvation lives which careful feeding would have saved.

POPULAR EDUCATION IN HYGIENE.

WE understand that the Devonshire County Council, coöperating with the National Health Society, are sending trained teachers and lecturers through Devonshire with a view to extending among the poorer population the knowledge of the means of preventing common ailments, and the selection and preparation of wholesome food. We do not doubt that good will result from this effort to educate the people. It is impossible to over-estimate the mischief which now results from ignorance, but if the ordinary means of prevention of disease and the laws of health can be made general knowledge, a great advance will be made. We shall watch the results of this effort with much interest, and we trust that the attention of other County Councils will be directed to the action of the Devonshire Council. We believe that Mr. Acland, M.P., has been instrumental in initiating this work.

CORPORA AMYLACEA IN THE LUNGS.

THE occurrence of the objects known as "amyloid bodies" in the sputum is rare. Friedreich was the first to observe them in 1856, and he ascribed their origin to the remains of old hæmorrhages in the lungs. A very complete account of these interesting bodies is given in *La Presse Médicale Belge* for May 10th of this year by Dr. F. Curtis. He describes two cases in which corpora amylacea were found in the lungs. They presented a typical appearance, occurring as oval or circular grains, but when separated from the surrounding tissues by teasing they were found to be almost geometrically ellipsoidal in shape. The longest diameter was from 125 to 150μ in the largest specimens, varying to 16 or 20μ in the smallest. They were composed of a vitreous-looking substance, stratified in irregular layers around a central nucleus, which differed in appearance from the peripheral layers, which were so arranged as to present a radiated formation. The central portion was sometimes scooped out so as to form a small hollow, from which shallow fissures extended, and sometimes was filled up with a material which was of a different composition to the rest of the grain. In some of the bodies the nucleus was represented by a small granular mass; in others by a cylindrical one, folded upon itself. Some of the grains were enclosed in a thin crystalline envelope of a black colour. In fact, all the varieties were found which had previously been described by Friedreich and Zahn. The chemical reactions were equally characteristic, and especially so in those specimens which had been preserved in Muller's fluid. A solution of iodine in iodide of potassium produced a deep-blue colour, and this tint became almost black on the addition of sulphuric acid. The nucleus was stained yellow by the iodine, a fact previously noted by Friedreich. Methyl-violet caused the same reaction as in amyloid disease generally, colouring the grains red, whilst the surrounding tissues assumed a blue tinge. Methyl-green failed to cause any special colouration. Picro-carmine had a peculiarly selective action, staining the bodies a deep red. Lastly, methylene blue was tried and results obtained which have been noticed by no previous observers. The nuclei of cells were coloured blue as usual, but the corpora amylacea assumed an emerald-green colour. In amyloid disease of the liver, the tissue is stained blue throughout when similarly treated, the diseased portions only taking up the green colour, when a drop of a solution of picrate of ammonia is added to the dye. As regards the pathological significance of these amyloid concretions, many diverse theories have been suggested, the two principal being those of Friedreich and Langhans. The former considered that these bodies were derived from hæmorrhages in the lungs; in all his cases there was a history either of recent hæmorrhagic infiltrations or traces of past inflammation. His theory was that a small clot formed locally, thus constituting the nucleus, and that fibrin was deposited in layers around it; that this formation underwent modifications, of what kind is at present unknown, which caused the bodies to assume their characteristic appearance and properties. Langhans, on the other hand, assigned to the corpora amylacea a cellular origin. In this he has but few supporters, and moreover the bodies described by him do not agree in all particulars with those now under consideration. The observations of Jurgens and Zahn corroborate those of Friedreich, and Dr. Curtis has arrived at similar conclusions from the cases which he has observed.

ALCOHOL AND LONGEVITY.

DR. RIDGE'S letter, which appears in another part of our impression, deals with a subject of great public interest and importance, but in a way which leaves something to be desired. Underlying the whole of his argument from the published figures of the United Kingdom Temperance and General Provident Institution is the assumption that the two sections into which the members of that society are divided—i.e., the Temperance Section and the General Section are substantially on the same footing in reference to such matters as bear upon longevity save in the one particular of the use or renunciation of alcohol. On this assumption the figures are both striking and significant, for they show that over a long period of years the mortality rate in the Temperance Section has been consistently and markedly lighter than in the General Section, and therefore, to use Dr. Ridge's words, "the use of alcoholic liquors produces degeneration of the tissues and shortens life." But is the assumption of parity between the two sections in all other material respects than the use of alcohol a sound one? We believe not. It has been frequently stated, and never to our knowledge denied, that those members of the society who, having entered in the Temperance Section, cease to practise total abstinence, are thereupon passed from the Temperance Section into the General Section. Thus the ranks of the latter are constantly receiving recruits from the former, and a moment's reflection will show that these recruits must be of an undesirable class. Not only are they brought in without medical examination, but even by a process of selection which obviously works against the office. In many cases failing health is the cause of recourse to alcohol; and a sensible proportion probably of these transferred risks are cases of persons in this plight. If so, it is manifest that the process must entirely destroy the comparative value of the resulting mortality figures. The mortality of the Temperance Section is relieved by the withdrawal of more or less moribund members, and the mortality of the General Section is aggravated by the accession of the same individuals. To what extent this affects the result it is obviously impossible to

say; but as most of the Life Assurance offices which publish their mortality are able to show as the result of medical selection a sensible reduction in the number of actual claims as against expected claims on a general business, the General Section of the United Kingdom Society would seem to be below par, and we strongly suspect that the explanation is what we have suggested. But the point is one that stands greatly in need of elucidation, and if those who have command of the very large statistical data which must have accumulated in the United Kingdom office would make a full disclosure, they would certainly produce a result not of merely statistical interest, but also of great public value.

THE CHAIR OF MEDICINE AT ABERDEEN.

WE understand that among the candidates for the vacant professorship of medicine at the University of Aberdeen is Dr. D. W. Finlay, physician to the Middlesex Hospital and lecturer on forensic medicine and hygiene. Dr. Finlay, who also holds the appointment of physician to the Scottish Corporation and to the Royal Caledonian Asylum, is a graduate of the Glasgow University, but has hitherto passed his professional life in London. His qualifications for the office are of a high order, and his contributions to clinical medicine have been numerous. At the present time Dr. Finlay is one of the hon. secretaries to the Clinical Society of London, which is itself evidence of the appreciation in which he is held in the metropolis. In our Scottish correspondents' letter the names of other candidates for the appointment will be found.

HYDATID CYST OF THE BRAIN.

DR. T. ESCHER, surgeon to the Spedale Civico in Trieste, has published a case of hydatid cyst in the right cerebral hemisphere which was under his care in 1888, and for which he operated. The patient was a child eleven years of age who had suffered for eight years from epileptiform convulsions and other symptoms of a tumour involving the right cerebral hemisphere. A preliminary exploration with a syringe established the diagnosis of hydatid cyst, and Dr. Escher therefore trephined the skull and exposed a very large cyst containing many daughter cysts involving the greater part of the right frontal and parietal lobes; these were removed. The patient never recovered consciousness after the operation, and died in a few hours in a violent attack of convulsions.

UNQUALIFIED PRACTICE IN LEICESTER ILLUSTRATED BY INQUESTS.

JURIES seem to take a very light view of deaths of children in Leicester, though unattended by registered practitioners. The *Leicester Chronicle and Mercury* contains a report of nearly a column on the deaths of two children attended by "a Mr. Anderson," living in Johnson-street, and resorted to as "the nearest doctor." The mother of the second child said she sent for "Dr. Anderson, as he had treated neighbours' children." She thought Mr. Anderson was registered. Mr. Anderson described himself as "a medical assistant out of a situation," not a registered practitioner, but having gone through the full curriculum at Dublin College. The first case was apparently a very grave disease of the cheek; the second, an insured child, suffered from convulsions. In both cases, as the child got worse, Mr. Anderson betrayed anxiety to have a regular practitioner called in, and in the second case to send for Dr. Grandison. That gentleman did not see the first case till after death. He said in his evidence as to the first case that he saw nothing in Mr. Anderson's medicine (salines and sanitas ointment) to harm the child; and in the second case—a child cutting its teeth—he went even a little further, and said the medicines—glycerine and bromide of ammonium—were "not inappropriate." We must express decided doubt as to the propriety of such easy vindications of unqualified practice by qualified men as were expressed in this case, and which seem to have satisfied the coroner and the jury. The coroner advised Mr. Anderson to be a little more explicit as to his non-qualification in dealing with poor people, but he made a very singular remark—that Mr. Anderson "had of course a perfect right to practise as a medical man if he liked, provided he did not infringe the law on the matter." We record elsewhere the case of persons fined £20 for practising as apothecaries. We cannot see any essential difference between these cases and that of Mr. Anderson. Be this as it may, it is unsatisfactory to hear coroners speak so lightly of "practising as a medical man." Dr. Grandison's position here too requires more elucidation. It is noticeable that he was called on in both cases—in the second on Mr. Anderson's suggestion; and that in both he made some apologetic remarks on the treatment, whereas it is by no means clear that with different treatment the result might not have been different. Infantile deaths in Leicester are not likely to get less numerous for such inquests as these, on which we have felt it our duty to comment.

ROYAL CORNWALL INFIRMARY.

WE understand that there are some local difficulties with regard to the position of a physician at Truro in connexion with the working of the Royal Cornwall Infirmary. If more suitable arrangements as to the position of a consulting physician could be determined on there would probably be no lack of suitable candidates for a post which offers many advantages.

THE WATER-SUPPLY OF FILEY.

IT is satisfactory to learn from a letter to the *Yorkshire Post* by Mr. C. G. Wheelhouse, F.R.C.S.Eng., now of Filey, and Mr. Hugh Orr, medical officer of health for Filey, that ample additions of very pure water have been made to the water-supply by the directors of the water company. Besides other additions, they have sunk an artesian well almost 400 feet, the water of which, in quantity practically unlimited, is beyond all reach of taint. Filey is deservedly considered one of our most valuable health resorts on the east coast. It is well for its own sake, and for the unusually numerous visitors that may this year be in need of helps to convalescence, that it has put itself right in this essential matter. Last year, like many other places, Filey suffered from a short water-supply. The letter of Mr. Wheelhouse and Mr. Orr is a sufficient guarantee that such a defect will not be likely to occur again.

DISSEMINATED RINGWORM.

DR. DUBREUILE points out (*Annales de la Policlinique de Bordeaux*, 1891, No. 5) that ringworm of the scalp may be overlooked owing to its occurrence in a diffuse rather than a circumscribed form—a condition which he terms "trichophytie disséminée." In such cases there is some general pityriasis, as in seborrhœa; but close scrutiny reveals isolated hairs having the characteristics of those in patches of ringworm, and the diagnosis is readily established by microscopic examination. In these cases there is but slight falling of hair, and as there are no bare patches, the condition attracts no attention. Hitherto he has only met with it in young girls with dark hair, possibly, he says, on account of the greater difficulty in its recognition among the blonde. If there be an unequivocal case of ringworm in one member of a family, he invariably searches for this dis-

seminated form amongst other members, often with success. He has never met with it in boys, and he notes as a feature of the affection that it tends rather to occur about the age of sixteen or seventeen, the period when ordinary tinea tonsurans is comparatively rare. He refers to observations of Pellizani, who noted that there was a tendency for this disseminated form to run in families, a fact confirmed by Dr. Dubreuile. Difficult in its recognition, it is especially difficult to treat, in view of the age and sex of the subjects of it, since the most thorough measures would involve the sacrifice of all the hair. In these circumstances, he is content mostly to prescribe antiseptic soaps and lotions—e.g., corrosive sublimate—and to rely largely on spontaneous cure. At the same time he commends, as securing the most certain and rapid means of cure, the plan recommended by Alder Smith of applying croton oil to each diseased follicle, a plan which, he remarks, necessarily entails much care and patience.

THE RIVER LEA.

WE note with much satisfaction that during the summer months the Lea is not to be polluted by the Tottenham and Wood Green sewage, but that this sewage will be admitted into the main drainage system of the metropolis. We believe that this is the only really satisfactory way of dealing efficiently with this question, and we would gladly see permanent arrangements made by which the Lea could be freed from this source of pollution. It is stated that much satisfaction has been given to the inhabitants of Hackney by this arrangement.

PURE CHLOROFORM.

WITHIN the past two or three years investigations have been made for the purpose of discovering some process by which chloroform can be manufactured in an absolutely pure condition, and the efforts of chemists in this country towards this object have been attended with considerable success. Thus "Warrington chloroform" is interesting as being obtained by a special process from ketones, and as being entirely free from any of the impurities mentioned in the British Pharmacopœia. M. Raoul Pictet is stated to have invented a process of manufacturing pure chloroform by which he is able to reduce the temperature to 130° Celsius below zero.

ST. ANDREWS GRADUATES' ASSOCIATION.

THE members of the St. Andrews Graduates' Association, instead of holding their usual dinner or conversazione, met this year at 11, Chandos-street, W., to hear a lecture on Greek Tragedy, by the Rev. Dr. Lewis Campbell, the distinguished Professor of Greek in the University of St. Andrews. The Professor first delivered a short discourse on the history and special character of the Greek drama, and then, from his own translations of their works, gave readings, assisted by Mrs. Campbell, of portions of the plays of Æschylus and Sophocles, concluding with a splendid delivery of "The Death of Ajax." In the spaces between the readings Mr. John Thomas, harpist to Her Majesty, played appropriate music, which added greatly to the richness of one of the most refined and classical meetings the Association has ever held. The lecture was attended by Sir Andrew and Lady Clark, Professor and Mrs. Tweedy, Surgeon-General Gordon, Sir Joseph and Lady Fayrer, Dr. and Mrs. Bullen, the President of the Royal Society of British Artists—Mr. Wyke Bayliss—and Mrs. Bayliss, and a large and brilliant audience. The President of the Association, Dr. Richardson, F.R.S., occupied the chair.

MR. GLADSTONE'S HEALTH.

UPON inquiry before going to press Sir Andrew Clark informs us that Mr. Gladstone took cold again about a week ago and had a renewed bronchial attack with fever. He is now, however, recovering, and it is to be hoped will be able to go down to Lowestoft at the end of the week.

THE CONTAGIOUSNESS OF INFLUENZA.

IN a paper read before the Epidemiological Society on the 20th ult., Dr. Richard Sisley contended that the current opinion as to the spread of influenza being mostly too rapid and sudden to be accounted for by contagia, a view so ably propounded by the late Sir Thomas Watson, requires reconsideration. He points to features in the spread of the recent epidemics in confirmation of the much older doctrine of its contagiousness, which, indeed, several of the records of various visitations support, and he concludes with the following propositions:—1. There is no doubt that the disease is contagious. 2. Isolated cases precede a general infection of the community. 3 The part played by contagion in the spread of the disease is most important. 4. There is some evidence in favour of spread of influenza by goods. 5. Influenza is not spread in England by a preliminary "contamination of the atmosphere," but the atmosphere is contaminated by individuals who suffer from influenza.

FOREIGN UNIVERSITY INTELLIGENCE.

Berlin.—Dr. Goldscheider has been recognised as *privat-docent*.

Leipsic.—Dr. Theodor Kölliker has been appointed to an Extraordinary Professorship.

Prague.—The candidates for the chair of Forensic Medicine chosen by the Professorial Senate are Dr. Paltauf of Vienna and Professor Kratter of Innsbruck.

URUGUAY, largely colonised from Italy, has (an Italian correspondent writes) been severely visited by typhoid fever, diphtheria, and small-pox, particularly in its chief town, Montevideo. Small-pox prevails to the extent of from sixty to eighty cases a day, the deaths being from fifteen to twenty of either sex, and of every condition. The sanitary authorities have adopted the most stringent hygienic measures. Gratuitous vaccination is practised on hundreds of the people daily, and the Legislative Chamber has at present under consideration a Bill to render vaccination and revaccination compulsory on every one of the inhabitants.

ONE of the chief events of the medical year in Italy is the Congress of the "Associazione Medica Italiana" which, with the "Esposizione d'Igiene," or Sanitary Exhibition, which invariably accompanies it, is held at one or other of the great seats of learning. Siena is the place of meeting for the next—that is, the fourteenth—Congress, and September the month in which it assembles. Concurrently with this will be held, also at Siena, a Congress for Children's Diseases, a department of medicine in which Italy has recently contributed good work.

THE Special Committee appointed to inquire into the sanitary condition of the House of Commons will include the First Commissioner of Works, Sir Guyer Hunter, Sir Henry Roscoe, and Dr. Farquharson, and will meet in about a fortnight.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—Mr. J. D. Pratt has been elected an Examiner in Dental Surgery and Mr. Maxwell an Examiner in Ophthalmology.

THE ORIGIN OF INFLAMMATION.

BY DR. THEODOR LEBER.

(*Concluded from page 1329.*)

IN our late notice of Professor Leber's work on "Inflammation" we gave an account of the phenomena he observed after the injection by puncture of the spores of aspergillus fumigatus into the cornea. In the next section of this treatise, Professor Leber proceeds to consider the intimate nature of the changes already described, and endeavours to give some explanation of them. In the first place, he observes two points are worthy of notice—that the action of the fungus spreads far beyond its proper seat, and at the same time that its action differs in the more remote parts from that which is observed at the seat of its introduction into the cornea. At the point where it is inserted it causes necrosis of the tissue. At the more distant part it causes inflammatory reaction and suppuration, the latter of which only secondarily invades the dead part. It is only, he observes, in a non-vascular and transparent part like the cornea that this difference between the present cause and the remote effect can be clearly followed in life. Professor Leber agrees with Cohnheim in thinking that the pus corpuscles found around and in the necrosed region immediately in contact with the seat of puncture are of extraneous origin, and do not proceed from proliferation of the fixed corneal corpuscles. He believes them to be leucocytes, and to come from the conjunctival sac, whilst the cells forming the ring of infiltration surrounding the necrosed part are, on the other hand, derived from the migration of corneal corpuscles from the peripheral vessels of the cornea, and the processes of mycelium may be observed to shoot into the clear corneal tissue, and to become surrounded by what Hibbert has well termed a leucocyte mantle, or investment which encloses the foreign body, and arrests its growth. Professor Leber remarks that the study of these phenomena has led him to form the conclusion that the remote or distant effects of the development of the fungus in the cornea admit of no other explanation than that the fungus forms or excretes some materials injurious to the organism, which being soluble and diffusible, spread to the surrounding vascular parts, in which by their action on the vascular walls and the blood they excite hyperæmia, inflammatory exudation, and emigration of white corpuscles. The toxic effect is really double, producing necrosis on the one hand and exciting inflammation on the other. In that part where the poison, or phlogogenetic substance, as he terms it, is concentrated—i.e., in and around the puncture—the anatomical elements of the tissue are killed, as is shown by the loss of the epithelium and of the endothelium, and the disappearance of the corneal corpuscles, with suppurative infiltration and throwing off of the whole mass; whilst in the more remote parts, where the phlogogenetic substance is more diluted, inflammatory reaction is alone excited. The nerves, and any influence exerted through them, may be put out of court, since section of the fifth, by which alone the cornea is supplied, produces no effect, as Snellen has shown, provided the eye be protected from desiccation and from traumatic lesions, such, for example, as the lodgment of micro-organisms. Careful consideration of the action of the poison on the vessels seems to show that it causes some change in the vascular walls, such, for example, as enlargement of the pores, allowing, in the first instance, sero-fibrinous exudation to take place, and subsequently the escape of the white corpuscles; and this action is best shown when the spores come into very close proximity with the vessels—as, for example, when they have been injected into the anterior chamber and have settled on the iris, for then the exudation of fibrin and leucocytes is most intense.

Professor Leber points to the movement of the leucocytes towards the injured part, and also to the pushing forth of vessels in the same direction, as evidence of the existence of an attractive influence which, however, is difficult to explain. The function of the white corpuscles themselves is to eliminate from the system the parts which have become necrosed by the action of the poison. Experiments made with the staphylococcus aureus and albus presented phenomena essentially similar to those following injection of the aspergillus fumigatus.

In support of the above-mentioned theory, that the action of microbes in the economy is to be regarded as essentially of a chemical nature and due to the generation by them of a poisonous substance or substances Leber adduces further evidence, for he found that suppurative inflammation could be excited in the eyes by the injection of extracts of putrefying material, the micro-organisms of which had been killed. Inflammation so produced, however, gradually subsided, because the exciting material was removed from the eye by absorption, and, of course, the living germ being absent no further poison was produced. These experiments and conclusions, though original so far as Leber is concerned, were only corroborative of similar, but antecedent, observations of Pasteur, who found that his "microbe générateur du pus" could, when dead cause suppuration similarly to the living microbe, but with the difference that the pus cells in the latter case contained living germs, and in the former case were free from them; but he did not either from these or his other researches draw the conclusion, which Leber claims as his own, that the effects of pus-generating micro-organisms were due to the elimination by them of a poisonous substance. Researches, the results of which were published in 1888 in a short provisional communication to the *Fortschritte der Medicin*, enabled Leber to state positively that the dry residue of a watery extract of staphylococcus aureus, as well as the alcoholic extract, when injected into the anterior chamber of the eye excited violent suppurative inflammation. From these cocci he obtained a crystalline substance, possessing characteristic chemical and physical properties, and capable of exciting intense inflammation leading to necrosis. To this substance he applied the term "phlogosin," though he was unable to give precise directions by which it could be obtained in a state of purity. Chemical investigations made at this time by Brieger led to the isolation of a series of such poisons which he named "toxines," and the poisonous agency of pure cultures of bacillus prodigiosus and of bacillus pyocyaneus when dead was demonstrated by Grawitz and De Bary, Steinhauss and others. In Leber's own experiments the extract of the pure culture of aspergillus fumigatus and other fungi was made with great care. The fungus was first killed by being immersed in pure alcohol, then transferred into sterilised vessels containing boiled distilled water. The alcohol was now driven off by a gentle heat, and the fluid evaporated to a small bulk. The injection of such solutions, after neutralisation with sodium carbonate, into the anterior chamber of the eye was painful, and as early as an hour after its injection into the cornea-vesicular elevations of the epithelium occurred with great congestion and swelling of the surrounding conjunctiva. This was followed by more or less extensive necrosis of the cell elements. The periphery of the cornea was infiltrated to a moderate degree with leucocytes. In the course of twenty-four hours the aqueous humour was mingled with many pus corpuscles and exhibited spontaneous coagulation, but after the lapse of four days spontaneous coagulation no longer occurred, though the amount of albumen present was increased. No germinating spores could be discovered. The region around the puncture was killed and ultimately thrown off, and with the occurrence of vascularisation regeneration commenced, and had proceeded to a considerable extent in the course of about a month, though it was not perfect even after the lapse of three months. The injection of the extract into the anterior chamber quickly excited rather violent inflammation. Additional researches made on the effects of injection into the cornea of the extract of putrefying muscle satisfied him that in putrefying muscle substances soluble in water are formed, which, when introduced into the living body, cause at the point of introduction suppurative inflammation and necrosis. These effects, though of less intensity, are very similar in their character to those produced by mycotic inflammation, especially in regard to the ring of infiltration caused by the migration from the periphery towards the centre of a number of leucocytes.

Our space will not permit us to give the details of experiments recorded in a quarto of upwards of 500 pages, and which include observations upon the action of gold and silver, glass, iron, copper, mercury, arsenious acid, and various organic substances, such as gamboge, croton oil, turpentine, cantharidin, thiodiglycolchlorid, jequirity, indigo, uric acid, oil, and starch, when introduced into the eye. We may, however, state very briefly a few of the more interesting points. The results of such penetration, it may be remarked, differ strikingly from each other—pure

gold, for example, although being to the naked eye entirely destitute of the power of exciting inflammation, yet after some weeks causing proliferation of the endothelium, giant-cell formation and emigration of leucocytes, which are visible under the microscope, a point that is of importance in relation to De Wecker's suggestion of establishing a drainage in tense eyes by the insertion of a loop of gold through the sclerotic. Spicula of glass in a similar way, though to a more perceptible extent, even when quite clean, are not quite harmless, but after some time injure the integrity of the retina, causing increase of the neuroglia and of the pigment epithelium, thickening of the vascular walls, and atrophy of the nervous elements. The changes in these cases extended far beyond the retina, and were not limited to the point of contact of the foreign body with the membranes of the eye. They were even strongly expressed in the neighbourhood of the papilla. In regard to steel fragments, Leber found that a portion of a needle seven millimetres in length thrust through the clean lamellæ of the cornea horizontally, so that a small portion of the middle was probably exposed to the action of the aqueous humour, though it was otherwise completely buried in the cornea, excited very little irritation, the metal appearing in position and quite bright at the expiration of three months. One hundred days after its introduction it freed itself by dropping into the anterior chamber, leaving only a brown stria in the cornea indicating its former position; the loosening of the tissue in this and other instances was effected by leucocytes. Fragments of iron introduced into the lens invariably caused cataract, with peculiar and characteristic discolouration of the lens, but were otherwise well borne. The entrance of such particles into the vitreous was attended with much more serious consequences, the injury leading to shrinking of the vitreous and to detachment and rupture of the retina. Nevertheless, the inflammation produced by the foreign body was comparatively slight, and only in the track of the lesion. In regard to copper, he found that sharp copper needles driven through the cornea into the anterior chamber, however carefully sterilised, excited aseptic suppuration, which was in strong contrast with the absence of any effects in similar experiments with needles of gold, silver, steel, and glass. The asepticity—that is, the absence of microbes in such suppurations—has an important bearing in practice, since it removes any fear of sympathetic inflammation, and permits efforts to be made to preserve the eye that would otherwise be given up for early enucleation. The observations on lead call for no special remark. In the case of mercury he found that when injected into the anterior chamber through a wound of the cornea made with a sharpened point of a glass syringe, with all antiseptic precautions, this metal proved an irritant, and that as early as twelve hours after the injection the droplets were surrounded by purulent exudation, which soon increased in quantity, and in the course of a fortnight or three weeks filled the entire chamber. Vascularisation of the periphery of the cornea occurred, and after some time pus appeared between the lamellæ; and, finally, as in some of the experiments with iron and copper, perforation of the cornea took place, with evacuation of the metal. Mercury oxide and mercury iodide when introduced into the anterior chamber excited a very intense necrotic power, preceded by a rather restricted area of suppurative inflammation. When the mercury was injected between the lamellæ of the cornea it excited, as might be anticipated from the above observations, necrosis and suppurative inflammation.

In regard to the application of the salts of mercury, Leber remarks that, as with those of copper, the persistent action of very weak solutions did much more harm to the tissues of the eye than a short application of the salt in a much stronger solution. Thus, painting the cocainised cornea with a 5 per cent. solution of corrosive sublimate for a quarter of a minute, which caused the appearance of a white spot five or six millimetres in diameter and detached the epithelium, only caused some conjunctivitis for a few days, after which the spot vanished; and even the application of the same solution to a superficial wound only produced a greyish-white spot, which did not appear to interfere with the regeneration of the tissue. The effects of injection of mercury and mercurials salts into the vitreous are especially described in detail, because the appearances presented resemble in many points of view those of chronic chorio-retinitis pigmentosa with calcified cataract.

Arsenious acid is characterised by its very intense necrotic action upon the tissues with which it is brought into contact. It is itself highly antiseptic, but its necrotic effects open the door to the entrance of many micro-organisms, especially in experiments which extend over some time, and in which the acid has had time to be removed by absorption. Introduced into the anterior chamber with antiseptic precautions, it causes no fibrinous coagulum, and if the grains of the acid are placed upon the iris they may remain in position for days without causing any noticeable exudation in their vicinity, a circumstance that must be regarded as very remarkable with arsenic.

In the concluding sections of his *magnum opus* Professor Leber proceeds to consider the causes of the migration and accumulation of leucocytes in the cornea and other parts after lesions have been inflicted upon them. The whole of his researches, he remarks, support the view of Cohnheim that the leucocytes proceed from the blood, and are not derived from the proliferation of the connective tissue corpuscles situated in the region affected by the injury. As evidence he cites an experiment in which he injected simultaneously, under thorough antiseptic conditions, a drop of mercury into the anterior chamber of the eye of a frog, and some cinnabar into the dorsal lymph sac of the animal. Very shortly inflammation appeared in the immediate vicinity of the mercury, and on examination it was found that nearly all the leucocytes which formed the inflammatory ring contained particles of cinnabar. Neither Cohnheim nor Leber, it must be remembered, deny the proliferation of connective tissue elements or of epithelium in inflamed parts, but only aver that the pus cells are not derived from this source. The products of the proliferation of the cells of either connective tissue or of epithelium are not pus cells, but epithelium and granulation tissue, the cells forming which are quite different from pus cells in size and form and in the characters of their nuclei.

In attempting to explain the peculiar mode of grouping presented by the pus corpuscles at the seat and around the seat of lesion, Leber thinks it is impossible to admit that the immigration of leucocytes is irregular and lawless, but that, on the contrary, it is easy to show that it is the result of quite definite actions and influences of the excitants of inflammation on the corpuscles. There are two hypotheses that may be advanced to explain the phenomenon, one of which he names the "paralysis" and the other the "attraction" hypothesis. The "paralysis" hypothesis is the simplest. According to this view the leucocytes escaping aimlessly from the vessels wander on all sides towards the lesion, but those which approximate this point experience a paralysing and ultimately a necrotic action, which interferes with their further movement, and as they accumulate they become fixed and immobile. If the action of the toxic influence is weak, the leucocytes may reach the very centre of the lesion before their movements are inhibited, and a central abscess results; if strong their movements are earlier arrested, and a zonular infiltration of pus cells is observed. That such a paralysing influence is really exerted by the products of microbe life may be shown by the circumstance that, on the addition of a small quantity of the extract of the aspergillus fungus, the movements of leucocytes are immediately arrested, their processes being retracted, and other phenomena of their death being exhibited.

The "attraction" hypothesis holds that the leucocytes are drawn towards the site of the lesion. It is possible that a weak solution of the poisonous agent is a stimulant to that side of the leucocytes on which it acts, and consequently produces more active amœboid movements on that side which would necessarily lead to movements directed towards the lesion. But this fails to account for the clear region of cornea between the cerebral abscess and the more peripherally situated zone, and Leber is hence inclined to admit both the "attractive" and the "paralysing" action; so that, taking the case of the aspergillus fungus, it would appear that the fungus kills the tissues at the point where it attacks, and that its excreta, or those of other microbes which develop on or in the necrosed spot, exert a toxic influence on the leucocytes in the vicinity, first attracting them and then killing them, so that at some distance a zone is formed, the inner margin of which is sharply defined, whilst the outer border is shaded off.

Professor Leber next discusses the causes which lead to the escape or migration of the leucocytes from the bloodvessels, and considers it likely that this is to a certain extent due to

the chemical affinities of the leucocytes. He refers to the important observations of MM. Massart and Bordet, as well as to those of Buchner, from which it appears that the leucocytes have not only direct sensibility or irritability in regard to external agents leading them on contact to invest certain bodies and enclose them in the substance of their bodies, but also a more subtle perception of the chemical nature of certain substances which cause them to respond in a definite manner; for in repeated experiments, when these bodies were placed in little tubes and introduced into the abdominal cavity of frogs, they became full of leucocytes, whilst in control experiments similar tubes containing substances which exerted no attractive power on the leucocytes remained free from leucocytes. For such effects Leber invents a term that, so far as we know, is new—Chemotaxis. Thus, whilst various substances, such as kreatin and urea, possessed no chemotactic influence, such action was observable in glycocoll, and was strongly marked in gelatine and alkali albuminate. The consideration of these results led Professor Leber to question whether the same causes which directed the movements of the corpuscles when once outside the blood-vessels might not exercise an attraction upon them in the interior of the vessels as well as favour their escape from them, especially since the substances are capable of diffusion, and his experiments, which have been both numerous and troublesome, have led him to the conclusion that the leucocytes can be withdrawn from the blood current by the introduction into the current of substances capable of exciting inflammation. Thus, in one instance, a minute conical tube containing a bead of mercury at the pointed end, and otherwise filled with normal saline solution, was introduced with antiseptic precaution into the jugular vein of a rabbit, and after a time, the circulation being in the meanwhile perfectly restored in the vessel, and the bead of mercury remaining in position, the little tube was found to be filled nearly to its orifice with leucocytes, from which it is evident that a true formation of pus can take place directly from the blood itself. The absence of a clot or of a white thrombus in this experiment is explained by the smoothness of the tubelet. The escape of the leucocytes from the vessels Leber of course explains, on Cohnheim's original view, that they actively penetrate and traverse the vascular walls, and that the process is not in any way to be regarded as a mere filtration of clumps of colloid substance effected by the pressure of the blood. Professor Leber gives a very careful *résumé* of the observations of the writers and experimenters, too numerous even to mention, who have discussed the process of inflammation, and we recommend the study of the numerous experiments he has recorded, as well as the conclusions he has drawn, to our readers, who will find in them many facts highly suggestive as affording an insight into the process of inflammation.

CONVERSAZIONE OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

THE premier Medical Society of the country has not infrequently been twitted with a certain want of hospitality and sociability; but whatever justification there may have been for this charge has been completely removed by the magnificent entertainment which the President, Council, and Fellows provided for their guests on Tuesday last. The Society's new house, which we may safely describe as the finest of its kind in London, is now completely finished, and the occasion was something of the nature of a house-warming. About 2600 invitations were issued, and a much larger proportion of these than is usually the case was accepted. The fact that it was impossible, under the circumstances, to invite ladies probably accounts for the phenomenal promptitude of the guests, for although nine o'clock was the announced time of beginning, many guests arrived as early as half-past eight. The handsome rooms were brilliantly illuminated with the electric light, and festoons of many-coloured electric lamps had a wonderfully beautiful effect. A profusion of palms and flowers completely transformed the appearance of the library. The large number of guests expected made it impossible to make an extensive show of the table exhibits which form so common a feature of entertainments of this kind, but what there was was of the choicest and best. Any deficiency in this direction was, however, more than made up for by the truly magnificent display of pictures which Mr. MacAlister, with characteristic energy, had got together at very short notice. Sir Henry Thompson's Tademas alone were well worth a journey to see. Below we describe some of the exhibits, and, as some evidence of their value, they were insured for the occasion for £20,000. The Carnival band, conducted by Mr. Godard, discoursed sweet music, and performed its part of accompanying the conversation with tact and skill. At intervals during the evening Mr. Orlando Harley, the eminent American tenor, sang brilliantly, and Mr. Charles Collette amused and delighted the audience with his inimitable monologues. The faithful few who remained to the end were abundantly rewarded by a marvellous exhibition of sleight-of-hand and card tricks by Mr. Burr Mackintosh, whose skill can only be accounted for by the suggestion that the "black art" is not yet a thing of the past. We believe we are right in saying that there is but one opinion as to the entire success of this new departure of our premier Society, and we trust that the good beginning thus made will lead to an annual event of a similar kind, though, probably, on a smaller scale. There is a widely expressed and strong feeling that it would be an immense gain to the Society if its Fellows had more frequent opportunities of meeting together in an informal and social way, and only at the last annual meeting Mr. Holmes, in his Presidential Address, expressed a hope that the Council might find means of supplying this want. We heartily congratulate Mr. Holmes, the President, and the members of the Conversazione Committee (Dr. Cheadle, Mr. Clinton Dent, Dr. Norman Moore, Mr. R. W. Parker, Mr. Knowsley Thornton, Dr. Samuel West, Dr. Frederick Taylor, and Mr. Warrington Haward) on a success the credit of which is largely due to Mr. MacAlister's energy and power of organisation.

Sir Henry Thompson sent some of the finest paintings from his well-known collection. Among others there were Millais' well-known portrait of Sir Henry himself; four Alma Tademas, notably his "Cleopatra" and his "Roman Garden"; two beautiful paintings by Medley, one of these possessing a double interest as a portrait of Sir Henry's mother when a child (this picture was exhibited in the Academy of 1795); one of J. Maris' best works; a lovely bit of colour called "Spring," by J. W. Inchbold; two fine studies by Etty; and last, but by no means least, three pictures by Sir Henry himself, all of which in their time had found places in the Academy and in the Salon. Sir Richard Quain also sent a considerable number of pictures: Maclise's well-known "Snap-apple Night" was quite a centre of attraction; two fine Landseer's, along with a second proof inscribed by the artist himself of that master's famous "Monarch of the Glen"; a charming landscape by Danby, with figures introduced by Poole; the original sketch for O'Neil's celebrated "Eve of Waterloo"; an Etty; and a masterly sketch by Holman Hunt. Among the engravings sent by Sir Richard Quain was a copy of one of the rarest and most beautiful of Cousin's works "Surprised," after Dubuffe. Mr. J. A. Bostock, C.B., one of the treasurers of the Society, was well represented by some charming works, including paintings by Teniers, Van der Werf, Pentman, Bassano, Telbin, M'Kewan, and several extremely clever pictures by Mr. Bostock himself. Mr. MacNeil Whistler generously entrusted to the committee a portrait of his mother, said to be his best work. Mr. Bruce Joy kindly sent some charming specimens of his art in the shape of busts of his father (the late Dr. Bruce Joy), Mr. Gladstone, Lord Salisbury, and Miss Mary Anderson. Mr. T. B. Kennington lent his last year's Academy picture "Outcasts." Mr. Edwin Ward sent striking portraits of Mr. Burnand, Mr. Labouchere, and Mr. John Tenniel. Mr. Tourrier sent three charming little paintings, and Mr. Seymour Haden sent as a specimen of his art a wonderful etching of "A Lancashire River." Dr. Hermann Weber contributed a valuable group of small bronze antiques, including a very fine and perfect specimen of the Egyptian Æsclepias. He also sent a fine marble statuette of Æsclepias, a Greek work of the second century. Mr. Clinton Dent sent a fine Greuze with Pettie's well-known "Threat," in addition to an interesting exhibit of antiquities and photographs. We may specially allude to a silver pen and ink case, used for writing prescriptions, of French workmanship, and evidently very old, but the date is unknown. Sir Richard Quain, in addition to the pictures

contributed by him, sent a pair of very handsome silver "Loving Cups" of Irish workmanship. Sir Somers Vine sent a unique collection of savage implements, weapons, ornaments, and articles of clothing from all parts of the world. Mr. Victor Horsley, assisted by Mr. Hawksley, exhibited his new trephining instrument worked by a small motor and a portable battery. We have only space to give a list of the other exhibits, interesting or beautiful, as most of them are already pretty well known. Dr. Braxton Hicks: Tassie's Intaglios and Medallion Portraits.—Mr. Francis Galton: "Thumb Markings."—Dr. George Harley: Comparative Collection of Calculi and Pebbles.—Dr. Theodore Williams: Photographs.

Mr. Edison's Phonograph was, as always, a great attraction, and was rendered specially interesting on this occasion as the company, with characteristic enterprise, made some fresh records on Tuesday morning from some uncommon cases at Guy's Hospital.

THE CONTAGIOUS DISEASES ACTS.

THOSE who are interested in the results of the Contagious Diseases Acts in reducing venereal diseases in general, and syphilitic diseases in particular, will remember that these Acts were in force, with less or more stringency, from the latter half of the year 1864 to May, 1883. In that month the periodical examinations of the prostitutes in the subjected districts were suspended, and as this was always regarded by the officials of the army and navy and by the metropolitan police officials employed in these districts as the most valuable part of this legislation, it was felt certain that the result of this suspension would be an increase of disease. In 1885 the Acts were wholly repealed. A sufficient interval has therefore elapsed to enable us to study three sets of statistics: (1) those showing the prevalence of venereal diseases prior to the passing of the first Act—that of 1864; (2) those showing the various ratios of disease at the fourteen stations under the Acts compared with those of fourteen stations never under the Acts and with those of all the stations never under the Acts; (3) those showing the ratios of disease since the suspension of the periodical examinations and the repeal of the Acts. Dr. F. J. Mouat, the President of the Royal Statistical Society, having wished that an authentic relation of the facts shown by these returns, which may be regarded as a most interesting experiment on public health, should appear in the journal of the Society, invited Dr. Robert Lawson to prepare it. This was done in a most exhaustive paper (accompanied by a very elaborate diagram), which was read by Dr. Lawson at a meeting of the Society on Jan. 20th, 1891. Full details of this, so far as related to the army, were given in THE LANCET of Feb. 7th, pages 319 and 320, and in that of Feb. 14th, pages 377 and 378. In the present article it is proposed to give the returns showing the influence of the Acts on the prevalence of the different forms of venereal affections in the Royal Navy; and the progress of syphilis among the civil population, both of which were also dealt with in Dr. Lawson's admirable paper.

In the "Statistical Report on the Health of the Navy for 1881" there is a table detailing the strength and admissions for primary venereal sores, and secondary syphilis and gonorrhœa, year by year from 1860 to 1881, in the various ships at the ports on the home station where the Acts were in force, and at those which were never under them. Dr. Lawson added to these the results for 1882 from the report of that year, so as to complete the period like that for the army (Table III.) already given. The ports referred to are: Those which came under the Acts—Dartmouth, Plymouth, Portsmouth, Southampton, and Queenstown; those never under the Acts—Hull, Liverpool, Kingston (Dublin), Greenock, and Leith. How very unequally the force was distributed between these two groups may be judged by the fact of 87 per cent. of it being at places under the Acts, and only thirteen at those never under them. Therefore the points of contact with the unprotected population being so few and the numbers at them so limited, much greater irregularity must be looked for than was found in the army returns under such different conditions.

The naval returns included primary venereal sores and secondary syphilis under the same heading from 1860 to 1865 inclusive; afterwards they were shown separately. It had been the practice in the navy not to enter slight cases of gonorrhœa on the sick list until the discussions on the Act arose and attention was drawn to the subject, when instructions were issued for all to be included; this seems to have taken place about 1870. In the appendix to Dr. Lawson's paper is a table (V.) which embodies the details for the twenty-three years 1860 to 1882, arranged in a similar manner to that of Table III. for the army, formerly noticed, but the conditions just mentioned will show that the analysis of the results cannot be expected to be so close as was found in the army. Proceeding on the same plan, however, Dr. Lawson compares the period 1860 to 1863, before any restrictive measures were in force, with that of 1870 to 1873, when they were in full operation; 1864 to 1869, being a transition period, may be omitted, as was done with the army. The following shows the relative frequency of primary sores and secondary syphilis taken together, and gonorrhœa in the force, under the Acts and not under them, in the two periods:—

Period.	Under Acts.		Not under Acts.	
	Syphilis: Primary and Secondary.	Gonorrhœa.	Syphilis: Primary and Secondary.	Gonorrhœa.
1860–63. No Act in force....	74·9	26·5	70·2	29·5
1870–73. Acts in full operation.....	45·6	62·0	106·8	50·4
Difference between 1860–63 and 1870–73	– 29·3	+ 35·5	+ 36·6	+ 20·9
Percentage of fall or rise....	– 39	+ 134	+ 52	+ 71

"Had the increase of 52 per cent. of the syphilitic disease at the stations never under the Acts been due to greater epidemic incidences, the improvement under them would have amounted to 39 + 52, or 91 per cent." This remark of Dr. Lawson shows how careful he is to credit the Acts with exactly as much as they deserve, neither more nor less. "But," he observes in continuation, "as shown by the army returns, there was a sensible decrease of epidemic influence over the country in the latter period; and in face of this it is probable that the large increase of 52 per cent. was due to some of those irregularities presented by small numbers. All that can be proved by this comparison, then, is that where the restrictive measures were in operation a material reduction of disease took place. As to gonorrhœa, the remarks made above obviate further comment."

A very remarkable and significant circumstance is that in the next period, 1874 to 1879, where the stoppage of pay deranged the admission rates in the army, there was no such interference with those in the navy. The results from the same table (V.) are these:—

Period.	Under Acts.		Not under Acts.	
	Syphilis: Primary and Secondary.	Gonorrhœa.	Syphilis: Primary and Secondary.	Gonorrhœa.
1860–63. No Act in operation	74·9	26·5	70·2	29·5
1874–79. Acts in full operation	36·7	62·4	88·8	50·3
Difference between 1860–63 and 1874–79	– 38·2	+ 35·9	+ 18·6	+ 20·8
Percentage decrease or increase	– 52	+ 135	+ 26	+ 70

The percentage of reductions in syphilis has here increased from 39 in 1870 to 1873 to 52 at the protected stations; but it has fallen from 32 at the former date to 26 at the latter, at those not under the Acts, corresponding with what took place among the troops in duration, though not so closely in quantity.

In the years 1880–82 the following were the results:

Periods.	Under Acts.		Not under Acts.	
	Syphilis: Primary and Secondary.	Gonorrhœa.	Syphilis: Primary and Secondary.	Gonorrhœa.
1860–63. No Act in operation	74·9	26·5	70·2	29·5
1880–82. Compulsory examination still in force ..	53·4	75·4	148·9	69·6
Difference between 1860–63 and 1880–82	21·5	48·9	78·7	40·1
Percentage, decrease, or increase	−29	+185	+112	+136

The decrease at the protected ports in 1880–82 as here shown was still 29 per cent. of that between 1860–63, notwithstanding the much greater prevalence of syphilis over the country at large, as is obvious from the military experience, as well as that of the navy, in the general Tables III. and V. for the respective services. The naval returns did not give the force at the protected stations and at those never under the Acts separately after 1882, but the strength and admission for the whole force at home last year are given in Table V. in the appendix to Dr. Lawson's paper. From this it appears that syphilis reached its highest point in 1884, the same year as in the army, though the ratios in the latter were much higher than in the former, being for primary sores 124 per 1000 and for secondary syphilis 30 2, while for the navy they were 83·2 and 26 9 only. Subsequently to 1884 the disease diminished considerably though irregularly, but contrasting remarkably in these respects with the large and more regular fall in the army. From all these Dr. Lawson finds that syphilitic affections are considerably more frequent among the troops than among the seamen at the protected stations than would have been expected. Thus the admissions per 1000 for primary venereal sores, secondary syphilis, and gonorrhœa were at these stations for the undermentioned periods:—

Periods.	In Army.			In Navy.		
	Primary Sores.	Sec. Syphilis.	Gonorrhœa.	Primary Sores.	Sec. Syphilis.	Gonorrhœa.
1870–73..	52·5	20·3	100·3	32·6	13·0	62·0
1874–79..	38·7	23·0	67·6	26·9	9·8	62·4
1880–82..	75·6	26·6	99·0	38·7	14·7	75·4

"This immunity may be due," Dr. Lawson suggests, "in part, at least, to the seamen living on board ship a large portion of their time, and so being less exposed to sources of infection than soldiers, who are always on shore, and possibly, to some extent, to their employing ablution earlier after such exposure than is customary among soldiers. Under any circumstances it is worthy of note."

The prevalence of syphilis among the civil population and its increase or decrease in recent years would be most interesting and valuable information could it be obtained. But it cannot. Lock hospitals in the United Kingdom are so few and far between that they could be easily counted upon the fingers of both hands. Lock wards, too, exist in only a very small proportion of general hospitals, and contain very few beds. Hospital statistics, therefore, could only relate to a few districts so far as in-patients are concerned, and the statistics of out-patients would be hardly reliable. There are, however, some returns available—viz, those of the Registrar-General, which give the deaths registered from syphilis. As, however, deaths from this disease are often registered under some other heading, the record must be very far from perfect. Still they furnish some approximation to the truth, and some years after the passing of the Contagious Diseases Acts it was found that there was a considerable difference between the number of deaths from syphilis in those of the Registrar-General's districts which comprised the protected stations and those which did not. Dr. Lawson has given these and other details in Tables VI. and VII. of the Appendix to his paper, from which we give the following extracts. From 1860 to 1889 there died from syphilis 56,551, of whom 41,828 were children under one year of age; of the remainder, 3955 were between one and five years of age, and 10,768 above five years, being respectively very nearly 74·7 and 19 per cent. of the whole. Table VII. gives the distribution of the deaths from syphilis among the civil population of the different divisions of the Registrar-General, which have been arranged so as to throw the whole country into five continuous groups, the metropolis forming one of them, the period being for the six quinquenniads from 1860 to 1889. The first, being a transition one, has been passed over as affording no secure basis for generalisation. The second (1865 to 1869) embraces the first introduction of the Contagious Diseases Acts, and with those that follow enables the influence of these Acts on the frequency of deaths from syphilis to be traced. The deaths per million living in each of these groups in the respective quinquenniads were as under:—

Periods.	England and Wales.	Districts.				
		I.	II. & V.	III., IV., & VI.	VII. & XI.	VIII., IX., & X.
1865–69 ..	80	144	68	67	44	85
1870–74 ..	80	127	62	72	49	88
1875–79 ..	85	128	60	77	58	97
1880–84 ..	84	127	55	75	56	96
1885–89 ..	73	112	55	61	51	83

That the beneficial action of the Contagious Diseases Acts was not confined to the troops and seamen, but had reduced the mortality from syphilis among the civil population in the districts where they came into operation to a material extent since 1870, will be seen by the following facts. Ten of the twelve protected stations in England are in the counties south of the Thames and Bristol Channel, constituting the second and fifth divisions of the Registrar-General; one station, Woolwich, is in the first or metropolitan division, and one, Colchester, is in the fourth division. Taking the quinquenniads 1865-69, 1870 74, and 1875-79, the mortality at all ages from syphilis in the second and fifth divisions was 68 per million living in the first period, declining to 62 in the second and to 60 in the third, a reduction of 12 per cent. In the third, fourth, and sixth divisions, extending from the east coast to the Welsh border, immediately north of the second and fifth divisions, the mortality from syphilis in 1865–69 was 67 per million, almost the same as in the two southern divisions; but, instead of falling in the next quinquenniad, it rose to 72 and to 77 in the following one, a rise of 15 per cent. In the next group to the north, comprising the seventh and eleventh divisions, the deaths from syphilis in 1865–69 were 44 per million, rising to 49 in the following quinquenniad and to 58 in 1875–79, a rise of 32 per cent. In the remainder of England, to the north, the deaths rose from 85 in 1865–69 to 88 in the succeeding period, and to 97 in 1875–79, an increase of 14 per cent. London presented the only exception to the general rise; this, with the neighbouring county, comprised in the first division, had a mortality of 144 per million from syphilis in 1865–69; this fell to 127, or 12 per cent., in 1870–75, and virtually remained at the same rate. From all this it is clear that the Contagious Diseases Acts diminished materially the mortality from syphilis, not only in the immediate localities where they were enforced, but to a large distance around them; while in London there had been a smaller reduction, and in the rest of the country a very marked increase. In the quinquenniad 1880–84 there were indications of a commencing change, which went on to the great decrease observed in the country generally in 1885–89, and in every group of divisions as well. The fall in 1880–84 was much accelerated in the second and fifth divisions, where the compulsory examination was continued until May, 1883.

Those who have defended these Acts through evil report and through good report will now have the satisfaction of seeing that they do not deserve the reproach of being class legislation for the benefit of soldiers and sailors. Their beneficial results extended also to the civil population of the districts where they were enforced and to a large distance around them. Had their application been as general as it was limited the results would have been perceptible

apart altogether from the Registrar-General's returns. The persistent efforts of a factitious opposition led to their repeal, and so the United Kingdom must continue to bear the reproach of being almost the only civilised country in which the hospital accommodation for venereal diseases is, comparatively, *nil*, and no other steps are taken to prevent the spread of these loathsome and deadly diseases.

METROPOLITAN HOSPITAL SUNDAY FUND.

THE following were among the principal amounts received at the Mansion House up to Thursday last in aid of this Fund. The total sum received at that date amounted to nearly £38,000:—

	£	s.	d.
St. Paul's, Onslow-square (Rev. H. W. Webb-Peploe) ..	322	19	8
St. Peter's, Vere-street (Rev. W. Page Roberts)	230	0	11
St. John's, Paddington (Rev. G. S. Karney)	153	1	6
Stamford-hill Congregational Church (Rev. J. M. Gibbon)..	84	0	9
St. James's, Clapham (Rev. F. A. C. Lillingston)	134	4	5
St. Augustine's, Highbury	64	5	4
All Saints', Child's-hill	20	16	0
E. G. D. (a further)	25	0	0
Chapel Royal, Savoy	20	0	0
Julian Senior, Esq. (a further)	25	0	0
Blackheath Congregational Church, including £20 from G. Edwards, Esq. (Rev. C. Wilson, M.A.)	117	19	9
Chapel Royal, St. James's	51	4	0
St. Mary's, Balham, and St. John's, Bedford-hill	60	3	2
E. S. L.	20	0	0
Holy Trinity Church and Emmanuel Mission, Blackheath..	39	16	7
St. Barnabas', Pimlico	30	6	6
St. Matthew's, Upper Clapton	68	19	9
Friends' Meeting, Wanstead	51	14	1
Upton Baptist Chapel, Lambeth	21	2	2
St. Dunstan's, East Acton	33	9	10
Metropolitan Tabernacle (Rev. C. H. Spurgeon)	166	0	0
North Finchley Congregational Church	25	0	0
Finsbury Park Congregational Church	31	0	1
St. John's, Downshire Hill	47	11	0
Magdalen Hospital Chapel, Streatham	33	6	6
Brockley-road Baptist Chapel	20	0	0
St. John's Wood Presbyterian Church (Rev. J. Munro Gibson, D.D.)	92	3	5
All Saints', Camberwell	34	11	5
Trinity Presbyterian Church, Notting-hill	31	0	11
St. Peter's, Eltham-road, Lee	20	18	9
St. Thomas's, Regent-street	51	18	4
St. Paul's, Beckenham (Rev. Chas. Greene)	99	7	5
Christ Church and St. Barnabas', North Finchley	21	2	0
St. Peter's, Paddington	23	8	4
Christ Church, Chelsea	20	14	2
Central Hill Baptist Chapel, Upper Norwood	28	10	7
Christ Church, Beckenham	41	15	0
St. Luke's, Westbourne-park	75	12	4
Westbourne-park Baptist Chapel	33	6	0
St. Martin-in-the-Fields (Rev. J. F. Kitto, M.A.)	114	11	0
St. Saviour's, South Hampstead	22	15	7
Lock Hospital Chapel	29	11	4
Streatham-hill Congregational Church	44	15	3
St. Alban's, Streatham-park (Rev. S. M. Ranson)	104	6	0
St. Mary Magdalene's, Paddington	55	13	8
St. Paul's, Hamlet-road, Upper Norwood	83	18	0
St. Michael's, Stockwell	32	14	0
St. John's Presbyterian Church, Forest-hill (Rev. W. Martin, M.A.)	76	0	0
Aldenham Parish Church	41	0	0
W. T. Blanford, Esq. (a further)	20	0	0
St. Saviour's, Upper Chelsea (Rev. C. C. Walford)	81	11	0
St. Stephen's, Clapham-park	28	0	7
St. Thomas's, Stamford-hill	34	11	2
Thames Ditton Parish Church	25	11	2
St. Mary the Virgin, Primrose-hill	48	6	8

Other subscriptions have been received, and will be announced in our next issue.

THE PUBLIC HEALTH MEDICAL SOCIETY.

THE annual meeting of this Society was held on the 15th inst. at the offices, 101, Great Russell-street, London. Professor W. R. Smith, M.D., presided.

The report for the year shows that the Society maintains the confidence of diplomates in Public Health. Sir Charles A. Cameron was unanimously re-elected President, Dr. Allan Hon. Secretary and Treasurer, and the following gentlemen were added to the Council:—Surgeon-Major Compigne, Drs. F. W. Alexander, Herbert Goude, C. A. James, Cranford Maclearn, H. C. Tweedy, and Fallon P. Wightwick. The Society has lost during the year three members of its Council—viz., Drs. W. W. Day, Henry Smith, and W. E Steavenson, gentlemen whose services to the Society had been of the greatest value from its very inception. Attention was called to a letter from the Local Government Board to certain London vestries, calling upon them to appoint their newly elected medical officers of health for a period of twelve months only, unless they were prepared to devote themselves entirely to the duties of the office. It seemed to the meeting to be more conducive to the independence of the office that, with the exception of general medical practice, he should not be precluded from other work, and that the insistance by the Local Government Board of this condition will have the tendency to make the officer a mere vestry official. It was resolved that the President of the Local Government Board be memorialised on the unsatisfactory state of affairs.

The annual dinner of the Society will be held on Wednesday, August 12th.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Brighton Urban District.—On the basis of the Registrar-General's estimate of the population the general death-rate of Brighton for last year was 17·8 per 1000; and, so far as phthisis records can be regarded as comparable for different periods, it is noteworthy that the rate per 100,000 living has continuously gone down from 295 in 1861–70 to 164 for the past three years. There remain, however, conditions in Brighton the removal of which might be expected to be followed by a still further lessening of this mortality. Enteric fever never showed a smaller rate of death than last year, and it is evident that the zymotic rate is largely kept up by measles and whooping-cough, as to which no precautions are taken by parents. The sanatorium, though by no means a building such as Brighton requires, received 162 cases of scarlet fever and 22 cases of other diseases. Schemes are in view for improving the housing of the poor, sanitary inspections are actively maintained, and the general record of current work is one with which Dr. Newsholme may well feel satisfied.

Lowestoft Urban District.—A very careful report has been issued by Dr. W. A. S. Wynne on the need for the provision of a new isolation hospital for Lowestoft. He states that the main objections to the present hospital are its inability properly to receive simultaneously cases of more than one disease in both sexes, the absence of proper accommodation for the staff, and the structural unfitness of the buildings to resist alternations of cold and heat. In short, the existing hospital presents many of those features which act as a deterrent to the use of an infectious hospital, and thus defeat the very object for which they have professedly been provided—namely, the protection of the public from risk of infection by the prompt isolation of first attacks of the infectious fevers.

Liverpool.—The discussion which is going on as to the true population of Liverpool necessitates caution in accepting the death-rate for 1890 as 23·3 per 1000, and it must leave many statistical considerations as undecided. The notification system revealed last year, amongst other diseases, 1975 cases of scarlet fever, 251 of enteric fever, 39 of typhus fever, and 79 of diphtheria; and the three isolation hospitals included amongst their patients 997 cases of scarlet fever, 201 of enteric fever, 80 of typhus fever, but only 4 of diphtheria. There is a mortality chart for enteric fever and typhus fever; but, now that the localisation of attacks is possible, it is a pity that only fatal cases are shown, and this the more since the residences of people who mainly died at a hospital away from their homes has but little interest etiologically or otherwise. The mass of material issued under the heading of the Liverpool Sanitary Amendment Act, and which specifies the back-to-back houses, the court tenements, and other unhealthy dwellings included in the tenth presentment made in this matter, may be uninteresting reading outside Liverpool, but it indicates an amount of labour and of advance in the matter of improved dwellings the value of which it would be difficult to overrate, and we are glad to find that Dr. Taylor presses on systematic progress in this respect; for it is work which, above all other, will tend to free Liverpool of typhus fever, and to lower the general mortality.

Oldham Urban District.—Dr. James Niven always con-

trives to add to a general account on the sanitary state of this borough some special information as to advance in preventive medicine and general sanitary administration. The special subjects which are dealt with in the report for 1890 relate to refuse destructors, influenza in man and horses, and the etiology of consumption and pneumonia; the chapter on consumption being especially interesting in regard to the relation of that disease to antecedent attacks in households, age, trade, occupation, &c. The statistical part of the report is also very complete, and the annual rate of mortality from all causes is recorded as 21·5 per 1000. The admissions into the Westhulme Hospital included 127, 23 being of typhoid fever. Diphtheria has for some years been on the wane in Oldham, the number of cases coming under notice having steadily diminished year by year from 127 in 1887 to 11 in 1890. The general work done in the borough, together with an account of analyses of food, meteorological observations, and the like, go to make up a volume of much interest; and such a series of reports cannot fail to be of great value for local as well as, in some respects, for general purposes.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5859 births and 4161 deaths were registered during the week ending June 20th. The annual rate of mortality in these towns, which had declined in the preceding three weeks from 30·9 to 23·8 per 1000, further fell to 23·1 last week. The rate was 23 in London and 23·1 in the twenty-seven provincial towns. During the first eleven weeks of the current quarter the death-rate in the twenty-eight towns averaged 27·5 per 1000, and considerably exceeded the mean rate in the corresponding periods of the ten years 1881–90. The lowest rates in these towns were 14·2 in Plymouth, 15·1 in Leeds, 15·3 in Brighton, and 16 in Derby; the highest rates were 27·7 in Blackburn, 29·3 in Liverpool, 30·8 in Bolton, and 30·9 in Wolverhampton. The deaths referred to the principal zymotic diseases, which had been 359 and 313 in the preceding two weeks, rose again last week to 325; they included 111 from whooping-cough, 59 from measles, 43 from diarrhœa, 38 from scarlet fever, 37 from "fever" (principally enteric), 36 from diphtheria, and 1 from small-pox. These diseases caused the lowest death-rates in Brighton, Norwich, Birkenhead, and Bristol, and the highest rates in Manchester, Leicester, Bradford, and Liverpool. The greatest mortality from measles occurred in Portsmouth and Huddersfield; from scarlet fever in Derby, Bradford, and Wolverhampton; and from whooping-cough in Sheffield, Sunderland, Manchester, Liverpool, and Leicester. The mortality from "fever" showed no marked excess in any of the twenty-eight large towns. The 36 fatal cases of diphtheria included 28 in London and 2 in Portsmouth. One death from small-pox occurred in London, but not one in any of the twenty-seven provincial towns; 4 small-pox patients were under treatment in the Metropolitan Asylum Hospitals, and one in the Highgate Small-pox Hospital, on Saturday last. The number of scarlet-fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 872, against numbers declining from 927 to 859 at the end of the preceding four weeks; the patients admitted during the week were 84, against 66 and 61 in the previous two weeks. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 620 to 453, further fell last week to 439, but were nearly double the corrected average. The causes of 62, or 1·5 per cent., of the deaths in the twenty-eight towns were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Portsmouth, Norwich, Sunderland, Cardiff, and in six other smaller towns; the largest proportions of uncertified deaths were recorded in Bradford, Liverpool, and Hull.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 25·2 and 24·2 per 1000 in the preceding two weeks, further declined to 23·2 during the week ending June 20th, but slightly exceeded the mean rate that prevailed during the same period in the twenty-eight large English towns. The rates in the eight Scotch towns ranged from 11·8 in Perth and 18 in Greenock to 25·2 in Glasgow and 28 in Dundee. The 597 deaths in these towns showed a decline of 26 from the number in the preceding week, and included 24 which were referred to measles, 19 to whooping-cough, 11 to diarrhœa, 6 to "fever," 4 to diphtheria, 3 to scarlet fever, and not one to small-pox. In all, 67 deaths resulted from these principal zymotic diseases, against numbers increasing from 67 to 79 in the preceding two weeks. These 67 deaths were equal to an annual rate of 2·6 per 1000, which exceeded by 0·8 the mean rate from the same diseases in the twenty-eight English towns. The fatal cases of measles, which had been 27 and 26 in the preceding two weeks, further declined last week to 24, of which 18 occurred in Glasgow and 4 in Paisley. The deaths from whooping-cough, which had been 25 and 22 in the previous two weeks, further fell to 19, and included 9 in Glasgow, and 3 each in Edinburgh, Dundee, and Leith. The 6 fatal cases of "fever" showed a slight further increase upon recent weekly numbers, and included 4 in Glasgow. Of the 4 deaths referred to diphtheria, 3 occurred in Edinburgh. The 3 fatal cases of scarlet fever showed a decline of 7 from the number in the preceding week, and were all recorded in Glasgow. The deaths referred to diseases of the respiratory organs in these towns, which had declined in the preceding three weeks from 173 to 139, rose again last week to 143, and exceeded by 33 the number in the corresponding week of last year. The causes of 62, or more than 10 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had increased from 18·8 to 27 per 1000 in the preceding three weeks, declined again to 25·1 during the week ending June 20th. During the first eleven weeks of the current quarter the death-rate in the city averaged 24·5 per 1000, the rate for the same period being 24·8 in London and 21·2 in Edinburgh. The 170 deaths in Dublin during the week under notice showed a decline of 13 from the number in the preceding week, and included 5 which were referred to diarrhœa, 4 to "fever," 1 to whooping-cough, and not one either to small-pox, measles, or scarlet fever; in all, 10 deaths resulted from these principal zymotic diseases, against 3 and 9 in the preceding two weeks. These 10 deaths were equal to an annual rate of 1·5 per 1000, the rate from the same diseases being 1·8 both in London and in Edinburgh. The 5 fatal cases of diarrhœa exceeded the number recorded in any week since October last. The deaths referred to whooping-cough, which had been 1 and 2 in the preceding two weeks, further rose to 4 last week. The fatal cases of diphtheria, which had been 2 and 3 in the previous two weeks, declined to 1 last week. The 170 deaths in Dublin last week included 21 of infants under one year of age and 45 of persons aged upwards of sixty years; the deaths of infants showed a marked decline, while those of elderly persons corresponded with the number in the preceding week. Two inquest cases and 2 deaths from violence were registered during the week, and 73, or more than a third, of the deaths occurred in public institutions. The causes of 9, or more than 5 per cent., of the deaths last week in the city were not certified.

THE SERVICES

MILITIA MEDICAL STAFF.—Surgeon-Major F. Armstrong, M.D., 4th Battalion, the Border Regiment, resigns his commission; also is permitted to retain his rank, and to wear the prescribed uniform on his retirement (dated June 8th, 1891).

NAVAL MEDICAL SERVICE.—The following appointments have been made at the Admiralty:—Fleet Surgeon Matthew F. Ryan to the *Nile* (dated June 30th, 1891). Staff Surgeons: Alexander G. P. Gipps to the *Pallas* and Everard H. Saunders to the *Boscawen* (both dated June 30th, 1891); John Mackie to the *Serapis* (dated June 23rd, 1891). Surgeons: George M'Shane to the *Nile*, Hamilton Meikle to the *Tartar*, George H. Foote, M.D., to the *Indus*, Chas. B. d'E. Chamberlain to the *Vernon*, and James H. Dawe to the *Gossamer* (all dated June 30th, 1891); Mr. George Newstead, M.D., to be Surgeon and Agent at Blyth Haven dated June 24th, 1891).

VOLUNTEER MEDICAL STAFF CORPS.—*Rifle:* 2nd Volunteer Battalion, the Queen's (Royal West Surrey Regiment): Acting Surgeon J. P. A. Gabb, M.D., resigns his appointment (dated June 20th, 1891).—2nd (South Middlesex): Lawrence Patrick Joseph Finegan, Gent., to be Acting Surgeon (dated June 20th, 1891) —2nd Volunteer Battalion, the Manchester Regiment: Surgeon L. H. Jones, M.D., resigns his commission (dated June 20th, 1891).

Correspondence.

"Audi alteram partem."

NOTIFICATION OF DISEASE AND MEDICAL OFFICERS OF HEALTH.

To the Editors of THE LANCET.

SIRS,—Your severe strictures on the conduct of certain medical officers of health with regard to notifications brought before them having been reproduced in a provincial paper, I beg to lay before your readers certain facts which show a different aspect of the case. The district with which I am connected may be divided into four divisions of nearly the same population; from one division, however, I get as many notifications as the other three put together throughout the year. This being a colliery district, the houses are so constructed that the street door opens directly into the bedroom, whilst the back door opens into the kitchen or living room; and it has happened that I have been confronted with the patient notified. Our orders are to visit every house where disease is notified, and to report on the state of the premises, and as to drainage &c. Now, from casual inquiries which have been made on visiting houses, I have been surprised at the information which has been supplied to me without any investigation or direct examination. A case of inflammation of lacrymal sac was notified as erysipelas. Dental abscess was notified as erysipelas. A man with inflamed hand was out for a walk when I called; notified as erysipelas. A newly vaccinated child with inflamed lymphatics; notified as erysipelas. An inflamed breast notified as erysipelas. Abrasion of the fingers from flying a kite notified as erysipelas. A girl with her arms dyed from wool, not ill enough to leave her work for an hour; notified as erysipelas. A woman with bronchitis two weeks after confinement was seen sitting at her bedside nursing her baby; notified as having puerperal fever. A child notified as having scarlet fever was dead when I visited the house. The certificate of death was shown to me, and was marked pneumonia, and nothing else. The people of the house knew nothing about any fever being there. A case of typhus fever was notified to me, and happening to enter the sick room, I was told by the mother that her daughter had no fever. An investigation into this case seemed absolutely necessary, and I then discovered that the patient had a normal temperature, a pulse of 80, and without any kind of a rash. She appeared unable to protrude her tongue, and was supposed to have paralysis of the right arm and leg, and refused food. My diagnosis in this case was hysteria. A case of diphtheria which was notified proved to be follicular tonsillitis. Many cases of what I believed to be simple catarrh were designated as a "touch of scarlatina," and notified as scarlatina, but the people of the house were astonished to think that this meant fever.

The sanitary board on being informed of these shady kinds of notification gave directions to have cases investigated when we thought proper; and this was done, with the result of finding many more wrong notifications. The whole matter was then laid before the Local Government Board, who gave instructions that no case was to be investigated unless we had reason to believe that the medical practitioner was not acting *bonâ fide*.

It would be unwise to leave it to the health officer to prove the want of *bona fides* on the part of a medical practitioner, yet something should be done to preserve the usefulness of the Notification Act; and to remove all friction between members of the same profession, I cannot think of a better plan than for the sanitary board to have power to call in the assistance of a Government inspector, who should make a thorough investigation into any alleged false notification, and report to the Board.

I am, Sirs, yours obediently,

EDW. JEPSON,
June 10th, 1891. Medical Officer of Health.

*** Dr. Jepson's letter obscures the points at issue. He cites a number of instances of so-called "erysipelas" which he considers did not come within the meaning of erysipelas in the Act. This difficulty has occurred elsewhere, but it was essentially scarlet fever, and not erysipelas, that led to the correspondence which was submitted to the Local Government Board, and which elicited the official answer that Dr. Jepson had no duty to go behind the certificates of his fellow practitioners unless their *bona fides* was in question. Moreover, in some of the cases in question, Dr. Jepson will do well to explain what is the boundary line between diphtheria and "follicular tonsillitis" and between other affections having similar close kinship.—ED. L.

LITERATURE FOR THE BLIND.

To the Editors of THE LANCET.

SIRS,—My attention has been called to a paragraph in your last issue on the above subject, in which you dwell on the importance of extending and cheapening as far as possible the supply of books in raised type (and especially in the Braille type) for the use of the blind. Will you permit me, as a member of the Council of the British and Foreign Blind Association, founded by my late friend Dr. T. R. Armitage, to point out to your readers how far we have already succeeded in this effort, how greatly we are in want of aid in it, and how, as we think, that aid can best be supplied? The paragraph in question would almost lead a reader unacquainted with the subject to think that the magazine of which it speaks is the only—or at least the chief—effort to provide the blind with literature in the Braille type. On the contrary, although it is unquestionably true, as you say, that "the bulk and cost of such books have greatly militated against their production in large numbers," yet a perusal of the enclosed paper will show that the number of books printed by our Association from stereotyped plates in the year 1890 was over 6000, that the number of *sheets* written by blind writers by hand was considerably above 50,000, and that about 100 ladies are at present giving voluntary aid in writing books; also that the sale of books and music has gradually risen from £311 per annum in 1879 to £1264 in 1890. Further than this, we have, from the noble munificence of Dr. Armitage, a house rent free, and a clerical staff free of cost. Anyone, therefore, who either feels the desire to assist the blind in the way you point out, or wishes to show respect to the memory of a man dear to many of us, and once of singular promise in medicine (a promise which was only frustrated by his loss of useful vision), cannot do better than contribute to the Armitage Memorial, the bulk of which will be devoted to promote this part of the work of the Association. The particulars given above are extracted from the prospectus of the Armitage Memorial, which can be obtained, together with any further information required, at the office of the Association, 33, Cambridge-square, Hyde Park. It remains only too true that the cost of producing these books, whether written or printed, is and must be very considerable, and therefore, as the circular shows, the Association, whose work is constantly extending, is always in need of fresh supporters.

In illustration of the extent of our work, I may mention that we have recently commenced to supply sheets of the Koran in Braille type for the blind in Egypt, many of whom are thus enabled to earn a livelihood as public readers of that volume. We publish two magazines for the blind, and the Association, since its foundation in 1868, has embossed the works of over 1500 different authors in English, and works in Latin, Greek, French, German, Hebrew, Arabic, and Maratti. We are now preparing plates in Urdu for the blind in India.

I cannot ask you to publish the circular, but I hope many of your readers will send for a copy.—I am, Sirs, your obedient servant, TIMOTHY HOLMES.

Great Cumberland-place, June 24th, 1891.

THE ADMINISTRATION OF CHLOROFORM.

To the Editors of THE LANCET.

SIRS,—In your number for June 13th a case of death following the administration of chloroform is published by Dr. Thomas A. Dodd, Newcastle-on-Tyne. The case is a suggestive one, pointing as it does in such very clear terms to the conclusions of the Hyderabad Commission. There is here the early effect of chloroform narcosis on the respiratory centre, "his breathing suddenly stopped," and after recourse to artificial respiration the re-establishment of the respiratory function. The death subsequently, "evidently from cardiac syncope, having never regained consciousness," shows how closely the case was watched. It has always appeared to me that in the controversy raised since the issue of the Hyderabad Commissioners' report, the two sides assumed by the opposing controversialists have to a large extent been due to misunderstanding. For myself, I think the position taken up by the Commissioners is the one that will in the end prove to be correct. One of the main conclusions arrived at by the Commissioners after the postulate, that *deaths following chloroform administration occur from failure of the respiration*, is this, that chloroform causes great fall in the blood pressure. Is not this sufficient to account for the pallor and the loss of pulse at the wrist, quite enough to suggest cardiac syncope until some other cause could be assigned for these phenomena? It appears to me that this conclusion will be irresistible, and one cannot but hope that it will be reached without mixing personal matters in what is, after all, a purely scientific inquiry. In the case under consideration one hour and a quarter elapsed before death took place; the patient breathed again regularly, but did not regain consciousness. This result seems to be accounted for only on the hypothesis of lowered blood pressure reacting on what were doubtless already weakened vital powers, the central nervous system being starved for want of blood. The only other question to discuss here seems the treatment. If the blood pressure is lowered by the chloroform, is alcohol indicated? Would not the subcutaneous injection of digitaline be more rational? I have not experienced the loss of a patient under chloroform. Four cases of threatened complications have occurred to me; in each case failure of the respiration has been the first indication of danger; all revived and got over the crisis. I enclose my card, and am, Sirs, yours truly,

June 16th, 1891. INQUIRER.

To the Editors of THE LANCET.

SIRS,—A case is reported in your issue of June 13th of a recent death from chloroform at Newcastle-on-Tyne, from which I think a useful practical lesson may be learnt. As you say, the operation was one of necessity, and both it and the administration of the anæsthetic appear to have been carried out carefully and skilfully; but I think, in all fairness, a criticism may justly be made, and that is, with regard to the anæsthetic employed. I think, in spite of the conclusions arrived at by the Hyderabad Chloroform Commission, that there must be many who believe as I do, after two years almost daily administration of anæsthetics, that chloroform does exercise a depressant effect upon the heart centre in the medulla oblongata, as it also undoubtedly depresses the respiratory centre; in fact, it seems hardly possible that a powerful agent of the nature of chloroform can affect the respiratory centre so powerfully without also affecting in some degree and in like manner the cardiac centre, which lies so close to it. Had ether been the anæsthetic employed in the case under consideration, one cannot help thinking the unhappy calamity would probably have been avoided. Ether, we know, stimulates the heart's action, and I believe it also stimulates the respiratory system. Now, when there is so large a quantity of pus in the pleura as a quart, compressing the lung and most seriously interfering with the circulation of blood through the lung and embarrassing the heart's action, must it not be in the highest degree dangerous, and rather unfair to our patient, to administer an anæsthetic which may even possibly depress the heart still more when we have at hand an anæsthetic like ether, which we know stimulates the circulation. Another point in the case which is most interesting is that when the patient's breathing had stopped artificial respiration was done, and all seemed well until the chest was opened and a quart of pus evacuated, when the pulse was noticed to be failing. The reason of this I take to be that as it was a tolerably recent empyema, and the lung was probably not much bound down, on the withdrawal of the fluid there was a sudden expansion and rush of blood to the lung. This sudden detraction of blood from the heart and brain caused the failure of the heart's action, from which, in the opinion of the medical attendants, the patient died. The case shows clearly that there was first failure of respiration, which was recovered from, and then failure of the heart, from which death took place. The lesson to be learnt is that ether should be the anæsthetic always employed when operations are performed for the removal of large quantities of fluid from the pleura, unless there is any special circumstance in the case which contraindicates its use, and that we can by no means disregard the heart, or never bother our heads about the pulse when giving chloroform, as a recent correspondent in THE LANCET suggests we may do.—I am, Sirs, yours faithfully,

June 15th, 1891. HOUSE SURGEON.

ALCOHOL AND LONGEVITY.

To the Editors of THE LANCET.

SIRS,—The annual report of the United Kingdom Temperance and General Provident Institution, in which the expected and actual claims for the year 1890 are given, affords another opportunity of testing the comparative longevity and vitality of total abstainers and drinkers of alcoholic liquors. The weight and conclusiveness of this test increase with every year. The twenty-fifth return is as follows:

	Expected claims.	Actual claims.
Temperance section	314	225
General section	382	389

This shows 71·6 per cent. in the temperance section and 100·2 per cent. in the general, a difference of 28·6 per cent. in favour of the abstainers. This is a little higher than the averages of the whole twenty-five years, which are 69·9 and 96·6 per cent. respectively, a difference of 26·7 per cent. The advantage of total abstinence is shown by the following five quinquennial returns:

—	TEMPERANCE SECTION.		GENERAL SECTION.	
	Expected claims.	Actual claims.	Expected claims.	Actual claims.
1866–70	549	374	1008	944
1871–75	723	511	1267	1330
1876–80	933	651	1485	1480
1881–85	1179	835	1670	1530
1886–90	1472	1015	1846	1750
Total	4856	3336	7276	7034

This table shows that while in the general section the deaths have fallen short of the expected number by 242, in the temperance section the deaths are 1470 fewer. The fact that in the general section the deaths are below the healthy male average proves conclusively that the difference between the two sections is not due to excessive drinking on the part of any considerable number of the general section. The comparison, therefore, is fairly between abstainers and moderate drinkers—rather more moderate than the average middle-class picked lives,—and shows conclusively that the use of alcoholic liquors produces degeneration of the tissues and shortens life.—I am, Sirs, yours truly,

J. J. RIDGE, M.D. Lond.,
Hon. Sec. British Medical Temperance Association.

Enfield, June 8th, 1891.

THE GENERAL MEDICAL COUNCIL AND INCREASED REPRESENTATION.

To the Editors of THE LANCET.

SIRS,—It is to be hoped that this suggestion of Dr. Rentoul with regard to increasing the number of the members of the General Medical Council will not be carried out by the Privy Council. It is difficult enough now for the work to be accomplished in each session owing to the number of "voices" which require to be heard on each subject which arises for discussion. Instead of adding to their number, it would be almost worth considering by the Privy Council whether grouping of smaller corporate bodies, such as the Apothecaries' Companies in England and Ireland, and the various faculties of physicians and surgeons, and

giving each group a representative, would not be greatly to the advantage of the profession generally, and the Council in particular. Whilst the present system obtains it would be adding to the difficulties already met with by increasing the number of even the direct representatives. Large committees are notoriously unmanageable, and great loss of time results from the fact that each member of the Council has to "do something" for the "constituency" he represents. I should imagine that the funds of the Council would also seriously suffer by such an addition to the current payment of new members. The present direct representatives have done their duty most excellently, and the interests of the profession at large can safely be lett in their hands; remembering as we ought that although the other members of the Council are not *directly* elected by the profession, yet it would be almost, if not entirely, impossible for us to find better representatives were the election in our own hands. If any alteration is required in the Council it is a lessening in its numbers, not an addition, and this lessening can best be gained by the grouping I have suggested above. I venture to hope that medical men will think, not twice, but many times, before signing the petition to the Privy Council.

I remain, yours faithfully,

A. GEORGE BATEMAN.

Constitutional Club, S.W., June 20th, 1891.

EUCALYPTUS OIL IN THE TREATMENT OF SCARLET FEVER.

To the Editors of THE LANCET.

SIRS,—As being the first person to bring before the notice of the profession the method of treatment of scarlet fever by inunction of eucalyptus oil in combination with other essential oils and camphors, allow me to point out to Dr. Knox Bond that his treatment of scarlet fever by eucalyptus oil was not after the method recommended by me in a paper to be found in the Transactions of the Epidemiological Society, and which has been republished by Lewis in a separate form. I am not astonished that his trial failed, and could have told him that it would if he had communicated with me. I and my son and many medical men have during the last two years treated all scarlet fever cases by inunction of Tucker's Eucalyptus Disinfectant with uniform success, shortening the duration of the fever, enabling the patients to mix with the rest of the family after ten days, requiring no isolation, and preventing all serious sequelæ. He will see in my paper that I condemn all greasy preparations for inunction, but the essential oils and camphors composing the disinfectant are all highly volatile, and are in no way greasy. I should like also to inform him that most of the eucalyptus oil of commerce does not possess the antiseptic qualities that are absolutely necessary for its successful use in infectious diseases. I have for some years tested experimentally the different eucalyptus oils, as well as other essential oils, and hope one day to make known the results of my inquiries, for there are some of these oils that are more powerful antiseptics and germicides than the oil of eucalyptus globulus.

I am, Sirs, yours obediently,

June 11th, 1891. J. BRENDON CURGENVEN.

LIVERPOOL.

(FROM OUR OWN CORRESPONDENT.)

The Census Returns of Liverpool.

THE census returns of this city showing a considerable falling off in the population since 1881 has surprised many persons, being the very reverse of what they had expected, and yet on reflection there were several reasons why this reduction should not surprise us. Whole streets of houses have been demolished and their sites remain howling wildernesses, no other houses having been built to replace them. This is a defect which it is to be hoped the authorities will soon rectify. Much has been done for the working man; but in Liverpool, as elsewhere, he wants, and must always want, a home near his work, where, for the same rent which he formerly paid for a wretched insanitary dwelling, he can have a real home with every means for himself and his family to live in decency.

Liverpool and the Cheshire Side.

There is another fact which may account for the alleged reduction in the population of Liverpool. The Mersey Tunnel Railway has been extremely popular, and has brought Liverpool and New Brighton within twenty minutes' journey by any ordinary train, some doing the journey in a quarter of an hour. In other words, persons can leave the overcrowded city and be in a charming seaside resort, with a totally different climate, in half an hour. There are also Hoylake, West Kirkby, Egremont, Seacombe, Rock Ferry, and Bebington, all on the Cheshire side, with residences to suit all classes. It would be quite contrary to reason were advantage not taken of these opportunities of sleeping out of the crowded city, and the probabilities are that Liverpool will grow westward on the Cheshire side, the growth north, south, and east having almost reached its extreme limit.

The Weather and the Influenza.

Although the weather is now intensely hot, cases of the so-called influenza still occur and assume a very severe type. Members of the profession have suffered more or less severely, while some have escaped.

The Magistrates and the Temperance Advocates.

The meeting of the city magistrates to-day was attended by a deputation of citizens, who came in such large numbers as to fill all the vacant space of the somewhat large room. The deputation comprised clergy, doctors, and laymen, who urged upon the magistrates the importance of reducing the number of public-houses. Dr. Carter described the shocking sights seen in Liverpool hospitals on a Saturday night, and all agreed in urging the magistrates to encourage temperance and to discourage intemperance. Unfortunately, Liverpool is suffering to-day from the actions of magistrates of a bygone age, who, fearing to encourage a monopoly in drink, granted licences to every applicant, the result being a jump from the frying-pan of monopoly into the fire of a legion of public-houses. The question is a very difficult one; but in the face of recent legal decisions there seems no reason why new applicants should not be refused if more public-houses are not required.

Liverpool, June 24th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Gynæcological Congress at Newcastle.

THE Gynæcological Congress at Newcastle last week was very successful. As a meeting the attendance was good, and the interest of the papers and discussions was well sustained. At the banquet at the Assembly Rooms the honorary president, Dr. R. Barnes, presided. Dr. Oliver, in speaking to the toast of "The British Gynæcological Society," said that the success of the Society's gathering on that occasion was to be attributed to the activity of Dr. Benington, the local secretary, and to Dr. Murphy, of Sunderland. The President, Dr. Grigg, thanked the profession in the north for the reception accorded them, and alluded to the splendid accommodation afforded by the Durham College of Medicine, which, as a building, far exceeded most of the London schools. On Saturday the gynæcologists broke away into the country, making an excursion to the Roman Camp and other objects of interest on the North Tyne, and finally made "a raid" (by arrangement) on Swinburn Castle, where they were received by Dr. Wm. Murray with his usual hospitality.

Consett Public Park.

It is arranged that the handsome public park granted to and laid out for the district by the Consett Iron Company will be ready for opening by July 11th, and a demonstration will take place by the friendly societies, trades unions, and other public bodies of the district.

Durham.

Mr. J. J. Robinson, a *littérateur* and formerly editor of the *Durham Chronicle*, has been appointed editor and manager of the *West Sussex Gazette*. Mr. Robinson was highly respected in Durham, and was best known in the north to the profession as the organiser of the Friendly Societies' Convalescent Home; while the beneficent scheme itself, now an accomplished fact, was originated by Dr. William

Robinson of Stanhope, county Durham, a distinguished graduate of the University of Durham.

Death of Dr. Lewis George Broadbent of Bamburgh.

I regret to note the death of Dr. L. G. Broadbent of Bamburgh, which took place at his residence on Monday last, after an illness of only a week. Dr. Broadbent, who was highly esteemed in the district, was in his sixty-seventh year. He was medical officer to the Castle Dispensary, under Lord Crewe's charity, and medical officer of health for the Belford Union. A movement was on foot to present Dr. Broadbent with a testimonial, and towards that object a sum of about £150 had been subscribed by friends in Bamburgh and neighbourhood. It had been intended by the donors to make the presentation on July 1st next, which would have been his sixty-eighth birthday.

Sudden Death of a Newcastle Student.

An inquest was held here on Monday last upon the body of a medical student who was found dead in his bed at his lodgings on the previous morning. It was stated that the deceased, named Reynard Moore, was a native of South America. He was a noted amateur runner, and had lately suffered from an attack of rheumatic fever, his heart being thereby affected. The jury found that the cause of death was heart disease.

The Influenza Epidemic.

The epidemic of influenza has now subsided in the north-eastern counties, but it is reported to be still rife in the north-west. Lancaster and district have felt it severely, and up the Lune valley as far as Middleton-in-Furness it is also prevalent

The Population of Northumberland and Durham.

The increase in the population of Northumberland and Durham—viz., 72,000 and 150,000 respectively in the last decade—has been fully expected, but the increase of Newcastle-on-Tyne from 145,000 to 186,000, being at the rate of 28·2 per cent., was scarcely to be looked for. Durham city, like many other cathedral cities, has been almost stationary—at least the increase noted is only 350. Berwick, on the other hand, has decreased 2400. Barnard Castle has increased 1200. It has been pointed out as a general rule that wherever there are coal mines or ironworks the population has increased; where these do not exist it has practically remained stationary, or has declined.

Newcastle-on-Tyne, June 24th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

Edinburgh Medico-Chirurgical Society.

A SPECIAL MEETING of this Society was held last week for the exhibition of patients and pathological specimens. The patients included some very interesting nervous cases shown by Dr. John Thomson and Dr. A. Bruce, two cases of very successful result in excision of the wrist, performed according to Dr. P. H. Watson's method by Mr. A. G. Miller, the feature of the operation being that it is performed by one incision along the ulnar aspect of the wrist. Dr. James showed a man with displacement of the heart to the right side, and Mr. Caird exhibited a young man in whom the thyroid had been removed successfully by him, and was followed by a diminution in the symptoms of exophthalmos, which had been markedly present before the operation. Dr. W. Russell showed a series of casts illustrating diseases of the lung and liver.

Death of Dr. Donald of Paisley.

Paisley and the west of Scotland have lost a well-known and highly esteemed practitioner in the death of Dr. Donald at the age of fifty-nine. He had been in practice in Paisley for thirty years, and had been medical officer of health for six years. In the latter office he devoted himself with much spirit—often to his loss privately—to the carrying out of many sanitary reforms. His last scheme was to have the infirmary for general cases separated entirely from that for infectious diseases, insisting on the building of a new infirmary for the former, leaving the latter to be treated in the present buildings. The scheme is on a fair way towards realisation. Dr. Donald's funeral took place on Tuesday. It was a public funeral, attended by the magistrates and council and by large numbers of the general public. Traffic was suspended, and all shops closed along the line of route. As Dr. Donald had been an ardent volunteer for many years, the coffin was carried on a gun-carriage, and a large firing party of the Argyll and Sutherland Highlanders was in attendance, with their band and pipers. The ceremony was the most touching and impressive that has been witnessed in Paisley for many years, and gave striking evidence of the loss the community is sensible of having sustained

Loch Katrine Water and Lead.

Some uneasiness has been caused lately by the revival of an old and delicate subject, one which was hotly contested when it was proposed to bring Loch Katrine water to Glasgow, and which even delayed the passing of the Bill for a year in the Houses of Parliament—namely, the action of our domestic water-supply on lead. Distinguished chemists have taken opposite sides, and have shown most clearly that lead may be found in Glasgow water every day it is tested for. The usual arguments about the formation of a protective coating, the action on bright lead and on dull lead, and so on, have been laid anew before the public, much to its bewilderment. The only fact which has not been driven home as it ought to have been is that, whether the water contain lead or not, lead-poisoning is absolutely unknown in Glasgow, except in the cases of those who have been exposed in some special way, such as painters, plumbers, and other lead workers. The public may therefore drink its Loch Katrine water with undiminished confidence.

Public Health: Influenza.

Dr. Russell reports that the death-rate in Glasgow was 25 per 1000 last week. Influenza is still present; five deaths have been ascribed to it, one a child of five years, the others aged from fifty-three to seventy-three. Of the aged persons, two were inmates of the Old Men's, and one of the Old Women's Homes. This was the first indication of anything like a local incidence in the city. There were five cases of the disease in these institutions.

Small-pox in Glasgow.

The outbreak of this disease announced a fortnight ago has been happily stamped out, the prompt and energetic measures taken by our sanitary authorities having proved signally successful. The first cases beyond those originally found have been discovered, and the city has been saved the calamity of a small-pox epidemic. Vaccination and revaccination were the weapons employed. The whole staff of attendants in the Sailors' Home (where the outbreak occurred) were revaccinated; all the boarders were examined, and as many revaccinated as seemed to require it; the families of two servants who boarded at home were also revaccinated. Altogether fifty-eight persons were so treated in connexion with the outbreak, which seems to have originated in some mild and unobserved case among the seamen boarders.

The Mull Fever Scare.

This case, which was mentioned in THE LANCET a fortnight ago, seems to be having the effect of keeping visitors away from the island of Mull this season. Dr. Maxwell of Tobermory writes to the daily papers that the nearest cases of typhus fever were about twelve miles from Salen and twenty-two from Tobermory, and that these occurred more than three months ago. There is no typhus fever in Mull at present. Tobermory "is well drained, has an abundant supply of pure water, and scenery and climate equal to the finest in Europe."

New Park and Hospital for Glasgow.

The Town Council have acquired ground on the estate of Ruchill on the north-west outskirts of Glasgow for the purpose of providing a park for this crowded portion of the city. The ground measures about ninety acres, and is situated in a beautiful and elevated position commanding a magnificent view. During the deliberations of the Council on the matter it became evident that the eastern slopes of Ruchill were particularly suitable for what has long been felt to be much wanted—a hospital for infectious diseases similar to the admirable institution at Belvidere, which has now become as large as is consistent with proper administration and efficiency. About thirty-eight acres will be set apart for this purpose. The determination to erect a new hospital is a wise one, in view of the immense working-class population in the north-west of the city, and in view, also, of the approaching extension of the city boundaries. Further, for many years complaints have been numerous about the great distance to which infectious cases have to be con-

veyed for treatment, Belvidere being situated quite on the extreme east of the city. The Council is to be congratulated that at last this question of hospital accommodation for the northern and north-western quarter of the city is about to be solved.

The Chair of Medicine in Aberdeen University.

For the chair of Practice of Medicine in the University of Aberdeen, now vacant by the lamented death of Dr. Smith Shand, there are three local candidates—viz., Dr. Angus Fraser, now senior physician to the Aberdeen Royal Infirmary; Dr. Alexander MacGregor, junior physician to the Aberdeen Hospital for Sick Children; and Dr. P. B. Smith, physician to the Aberdeen Royal Infirmary. It is also said that Dr. James Rodger, assistant physician to the Aberdeen Royal Infirmary, is a candidate. Besides these local gentlemen a long list of "outsiders" appeared in one of the papers yesterday as probable candidates. Among those mentioned were Dr. Middleton, Glasgow; Dr. A. Bruce, Edinburgh; and Dr. Bruce, Dingwall.

The Medical Officership of Aberdeenshire.

The following three gentlemen form the leet chosen from the large number of candidates for the post of medical officer for the county:—Dr. James Watt, Edinburgh; Dr. Wilson, Old Deer; and Dr. Milne, Accrington. The appointment is to be made early next month.

Health of Aberdeen.

The following is the return of cases of zymotic diseases notified during last week:—Scarlet fever, 4; diphtheria, 4; typhoid fever, 1; whooping-cough, 13; erysipelas, 1; total, 24, an increase of 1 over those of the previous week.

June 23rd.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Dublin: Conferring of Honorary Degrees.

THE Senate will, on Thursday next, the 25th inst., confer a number of degrees *honoris causâ*. Among others, H.S.H. Prince Edward of Saxe-Weimar, Lord Ardilaun, and Lord Iveagh will receive the degree of LL.D., while the new degree of Doctor of Science will be conferred upon Dr. J. Emerson Reynolds, professor of chemistry; Dr. J. Malet Purser, professor of the Institutes of Medicine; and Dr. Cunningham, professor of anatomy; all three holding office in the medical school of the University of Dublin. The authorities of the university had a meeting on Monday, which had been adjourned from a previous date, in reference to the election of a Regius Professor of Surgery, in the room of Mr. Colles resigned. This second attempt also proved a failure, none of the candidates receiving a sufficient number of votes, and it is stated that the matter will be referred to the Chancellor for his decision. It may be noted that of the six candidates no less than five are ex-presidents of the Royal College of Surgeons.

Poisoning by Strychnine.

A gentleman named Rogerson committed suicide last week in the county Dublin by swallowing a quantity of strychnine. He took no less than two drachms, and died within fifteen minutes. This substance usually acts very rapidly, the shortest fatal period known having been ten minutes, and the longest six hours.

The Sanitary Condition of the Law Courts.

One of the jurors in the Nisi Prius Court last week, while a case was being tried, observed that the place where he was sitting was almost unbearable owing to an escape of gas; but one of the officers of the court explained that there was no gas in the building, and that the smell complained of was due to some other cause. Mr. Justice O'Brien, who presided, said that the condition of the law courts appeared to have baffled the best experts. The unpleasant odours, which from time to time were attributed by some to the escape of gas, others considered were due to defective sewerage, and latterly it was thought that they were caused by the back flow of the river Liffey when there was a full tide. It is a remarkable fact that although the effluvium from the river Liffey—into which the drainage of the city runs—is most disagreeable, especially during the summer months, yet statistics go to show that the mortality among those resident along the quays is less than in other parts of the city.

Death of Brigade-Surgeon Davidge.

Brigade-Surgeon (retired) George Davidge died on Tuesday morning at his residence, Grosvenor-square, Dublin, after a short illness, aged fifty-two years. The deceased, who obtained his medical education in Dublin, joined the Army Medical Department at an early age, and saw a good deal of foreign service, principally in India. Kind, courteous, hospitable, and strictly honourable in every transaction, he leaves a widow and four children to mourn his untimely decease. His eldest son is a student in the Schools of Surgery, Royal College of Surgeons.

Another Open Space for Dublin.

The Lord Mayor of Dublin formally opened last week a new recreation ground, known as the City Basin, on the north side of the city. The ground is walled in, and contains some three acres, in the centre being the "basin," a kind of lake surrounded by a promenade and grounds planted with shrubs. About £600 has been expended on this additional recreation ground for the use of the citizens.

June 23rd.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

Ocular Bacteriology.

THE science of bacteriology grows apace. At our present rate of progress not only must the whole teaching of pathology, as well as our views on the etiology of all disease, undergo revision, but even our tenets on the phenomena of tissue change, such as are in themselves commonly associated with advancing life, and usually accepted as unattended by any appreciable disease in the ordinary acceptation of the term, threaten to be subverted by the bacteriologist. Moreover, phenomena hitherto plausibly explained by some physical or abnormal peculiarity, and never suspected of bordering the pale of microbic influence, are about to be claimed by the bacteriologist as within his ken. These comments were prompted by reading a communication recently made to the Academy of Sciences by MM. Galippe and Moreau, on what may be abbreviated into "Some Points in Ocular Bacteriology." According to these observers, the old explanation of the books of muscæ volitantes will no longer hold good. Instead of owning a physical or neurotic cause, MM. Galippe and Moreau express their belief—and are almost prepared to show—that in the production of the phenomena of muscæ volitantes the microbe is here as elsewhere paramount. Again, starting with the theory—a theory largely supported by some antecedent experiments—that the calcification of pathological tissues is due to a microbe, the authors of the communication prosecuted their inquiries with a view of determining whether, in a crystalline lens affected with cataract, and about to undergo a calcareous change, the presence of a micro-organism could be detected. In nearly the whole of the cases which they submitted to this research a microbe was present. And not only so, but the calcareous concretions of lost eyes displayed the constant presence of a micro-organism as well. In short, MM. Galippe and Moreau, without attributing an exclusive *rôle* to these parasites in the opaque change in the lens, are of the conviction that they must be reckoned with as a powerful factor in its production. As a result, they urge that in cataract, sympathetic ophthalmia, and other ocular affections in which the microbian theory has been established, antiseptic treatment and precautions, both extra- and intra-ocular, should be rigidly practised.

Chloride of Ammonium in Influenza.

At the last meeting of the Academy of Medicine, M. Marrotte advocated the use of chloride of ammonium in the treatment of epidemic influenza, in preference to sulphate of quinine as urged by M. Gellié of Bordeaux in his recent paper read before the Academy. M. Marrotte speaks very highly of the results obtained by chloride of ammonium, the advantages of which over quinine he claims to be that it is much cheaper, more rapid in its action, and brings about a more complete and definite cure. It is more especially in those forms of the disease which are complicated by pulmonary congestion or inflammation that chloride of

ammonium will be found serviceable. From fifty to eighty grains may be given in twenty-four hours in the form of eight-grain powders, which may be conveniently concealed in a wafer. As the treatment of influenza is unfortunately, like many other therapeutic problems, a very open question, perhaps some of your readers on your own side of the Channel, whose opportunities just now are only too unlimited, might put the drug to the test and record their experiences.

A Plea for the Muzzle.

Nine persons were bitten by a single mad dog a few days back at Méry-sur-Oise, and have since been admitted to the Pasteur Institute. The owner of the dog, who ran after the animal through the streets, is amongst the number of the patients, as well as three members of his family. A little boy was bitten on his head, the remaining victims principally on their arms and legs. So far they are all progressing satisfactorily and have already been inoculated several times. There is every reason to hope no fatal result will occur. Here is matter for the opponents of muzzling to ponder over. In a conversation which I recently had with M. Pasteur, he remarked on the diminution in the number of cases which came from the United Kingdom within the last year as compared with the year before, a diminution which he attributed largely to the salutary effect of the muzzling order, and he cited the example of Berlin, where the order is still rigorously in force, and in which city hardly a single case of rabies has been recorded for some time past.

Pharmacists and First Aid.

When an accident occurs in a public thoroughfare and someone is seriously injured, the custom which obtains in this city, as elsewhere, of taking the injured person to the nearest pharmacy for a first dressing seems a very natural one. A medical man may not be within immediate call, and it is quite conceivable that serious results to the patient may ensue from delay in the application of intelligent first aid; therefore the pharmacist should know how to apply this. But as a rule he does not, for the simple reason that he has never been taught. His education as a "pharmacien" ignores first aid. This is hardly as it should be, and I submit the suggestion to your English St. John Ambulance Society. The Ambulance Society of Bordeaux has recognised the defect, and has organised a series of lectures to the local pharmaciens on first aid, which are being numerously attended.

Paris, June 23rd.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

Professor Scanzoni.

SCANZONI VON LICHTENFELS, one of the founders of modern gynæcology, died a few days ago at his country seat, Schloss Zinnenberg, in Upper Bavaria. He was born in Prague in 1821, graduated there in 1844, worked for five years as physician in the women's wards of the General Hospital there, during which time he wrote his "Lehrbuch der Geburtshilfe" (Compendium of Obstetrics), was appointed Kiwisch's successor as professor of obstetrics in the University of Würzburg in 1850, and taught there till 1887. Besides the Lehrbuch and the seven volumes of "Beiträge" (Contributions), which form a rich treasury of gynæcological knowledge, he wrote "Krankheiten der weiblichen Sexual-organe" (Diseases of the Female Sexual Organs), edited Kiwi-ch's posthumous works, and continued his "Klinische Vorträge" (Clinical Lectures). In the sixth decade of this century Scanzoni's clinic in the Julius Hospital at Würzburg was one of the chief centres of gynæcological instruction in Germany, and students flocked to it from all parts of the world.

Koch's Institute for Infectious Diseases.

One of the most interesting feautures of Koch's new Institute for Infectious Diseases in Berlin is the building for disinfection and necropsies. In it the rooms for infected articles are so effectively separated from those for clean linen &c. that even the attendant cannot go from the former to the latter except through a bath-room, in which he must take a bath and change his clothes. Another of the precautions is the careful sterilisation of fragments of the patients' meals. The scientific department of the institute is in an old building not far from the hospital. It contains working rooms, laboratories, rooms for animals, incubating rooms arranged partly after the model of Pasteur's in Paris, a department for micro-photography, a library, store-rooms, several dwellings for the officials, &c.

Dr. Richard Pfeiffer.

Dr. Richard Pfeiffer, who is to be at the head of the laboratory in Koch's new institute, became widely known in medical circles only about three years ago, when he joined Karl Fraenkel, now professor in Königsberg, in editing "A Micro-photographic Atlas of Bacteriology," which has gained a wide circulation. Pfeiffer has also published important investigations concerning the cholera bacillus, undertaken with a view to testing the assertion of Gamaleia, that the vibrio Metschnikoff can be transformed into Koch's cholera bacillus. The establishment of the fact that pigeons enjoy immunity from cholera is also partly due to Pfeiffer. For some time past he has been Koch's first assistant in the Hygiene Institute, and he established himself as a private lecturer in the university some weeks ago.

Professor Virchow.

A portrait medal of Rudolf Virchow is to be struck by Anton Scharff of Vienna in honour of the great pathologist's seventieth birthday on Oct. 13th next. An admirable portrait of Virchow by Hans Fechner, jun., is now to be seen in the International Art Exhibition here.

The German Congress of Physicians and Surgeons.

The nineteenth German Congress of Physicians and Surgeons was opened yesterday at Weimar by Dr. Graf, Privy Councillor in Sanitary Affairs, of Elberfeld. Dr. von Conta, Privy Councillor in Medical Affairs, greeted the assembly in the name of the Grand-ducal Government, and Burgomaster Pabat in the name of the town. Ninety-five delegates, representing 148 societies, were present.

A Model Brewery.

The Experimental Brewery here, which serves also as a school for brewers, was visited the other day by the Free Association of Hygienists. Privy Councillors Pistor and Tobold, Drs. Weyl, von Esmarch, and Pfuhl of the Hygienic Institute, and Professor Rütschel, Dr. Hartmann, and the engineer Herzberg, of the Technical Academy, were of the party. The arrangements for keeping the beer free from noxious bacteria were inspected with special interest.

Berlin, June 23rd.

CANADA.

(FROM OUR OWN CORRESPONDENT.)

University of Toronto Notes.

A SPECIAL CONVOCATION was held on May 6th, when forty-eight were admitted to the M.B. degree, one to that of M.D., and nineteen received the D.D.S. The Medical Alumni Association held their annual meeting the same day, transacted general business, and elected officers. The dinner was held in the evening, and proved a most successful affair.—The plans for the library have been approved by the Senate and the site chosen. The main entrance will be from the drive on the east side of the lawn; the style will be Norman, in keeping with the College buildings. Accommodation will be provided for 120,000 volumes, in a stack room 38 by 59 ft., with the books arranged in three storeys. This portion of the building will be made absolutely fireproof, and cut off from the other portion by double fireproof doors. The reading-room will accommodate 200 readers. The approximate cost is 65,000 dols., the greater portion of which has been already subscribed.—Sir Daniel Wilson will visit Europe during the summer, leaving the latter part of June.

General Hospital, Montreal.

Additional buildings are to be erected at a cost of more than £20,000. A new amphitheatre containing receiving and examining and waiting rooms for out-patients, and a new operating theatre, with two pavilions each of two storeys, and giving space for 112 beds, are the chief improvements. The new wards will be for surgical cases only.

Ambulance Instruction to Police.

The first class of our city police to receive instruction as prescribed by the St. John Ambulance Association was recently formed, and the examination held a week ago. Of

twenty-eight competitors seven received first-class certificates. We trust that the classes will be continued until most if not all of the force of 300 men have received instruction in "first aid."

Provincial Board of Health for Ontario.

Dr. Covernton presented a report on the abattoirs of Berlin, an inspection of which he made last year. Drs. Cassidy, Covernton, and Bryce were appointed delegates to the seventh Congress of Hygiene and Demography, to be held in London, England.—The report of the Board's Committee on Epidemics has been issued. It alludes, among other things, to the management of municipal hospitals for consumptives and of sanitaria. It states that there can be no logical reason why municipal and State Government aid should not be given to hospitals specially appointed for treating consumption.

Obituary.

SIR PRESCOTT HEWETT, BART., F.R.S.

SIR PRESCOTT HEWETT, one of the Queen's Sergeant-Surgeons, and one of the acknowledged chiefs of British surgery, has passed away, after a lingering illness, in his seventy-ninth year. He had for the last eight or nine years practically retired from active practice, and his friends had for some time been aware that his life was only a question of days or weeks. Still our readers will not the less mourn for the extinction of a light which has so long shone among us, and the death of a man whose services were equally valued in the palace and the cottage.

Sir Prescott Hewett was a pupil and intimate friend of Brodie, and carried on at St. George's Hospital the great traditions of the school of Hunter, Home, Brodie, and Cæsar Hawkins. And he was worthy of such illustrious predecessors, for he was a devout student and an ardent practitioner of the art of surgery; he was fondly attached to the interests of the hospital with which his family was already connected, through the presence on the medical staff of his half-brother, Dr. Cornwallis Hewett; and he was one of the fittest men in the world to instruct students, for he had all the lucidity of exposition which is required to convey the knowledge of subjects teeming with difficulties of detail, his ready pencil could illustrate the most complicated anatomical descriptions, and his stores of experience could furnish cases in point in all discussions. Thus he was an admirable anatomical and surgical teacher. But, far above all this, he was a man of that high character and lofty sense of honour which readily find a response in the bosoms of the young, and give to its possessor an influence over them which no merely technical excellence can ever bestow. The early life of young Hewett was passed for some years in Paris, and there he acquired that perfect familiarity with the French language in which he excelled most living Englishmen. There he also worked in the painters' studios, and, it is said, contemplated the practice of art as a profession. Indeed, though he relinquished (if he ever entertained) the idea of making art his profession, he never abandoned its practice. His vacations were passed in Wales, or at Swanage, or somewhere in the country, in the midst of scenes which it was his delight to spend whole days in painting, and from which he made those delightful and exquisitely elaborate drawings which were the wonder of his friends, and some of these were exhibited last year in the board-room of St. George's Hospital amongst the other productions of a society of members of the hospital school. Of that society he was President. Its members will suffer a grievous blow by his decease; but it would be a good work on their part, and would gratify his numerous friends, if they could obtain the consent of their late president's family to exhibit in the same way (i.e., to his friends and pupils at the hospital) a collection of his excellent drawings. It will be seen from this that Mr. Hewett, when he entered the profession, was no mere drudge of the dissecting-room. He had, however, as much zeal in the prosecution of his medical studies as if he had had no pursuit or taste in life beyond his profession; in fact, probably more, for we believe it is perfectly true that the man of merely one idea, however hard he may drudge, never makes so good a student or attains so high a standard as one who has other pursuits on which to unbend his mind. At any rate, when young Hewett came over to London he soon showed that he was an accomplished anatomist and a skilled pathologist, and the authorities of the school, of whom Brodie was by far the chief, soon saw that he was too good a man to be lost. So when he was offered an appointment in the East India Company's service they intervened and persuaded him to act as demonstrator of anatomy in the school and as curator of the museum. Anyone who will examine the post-mortem records which Sir Prescott Hewett commenced in those early days, and which have been kept on the same pattern ever since, will see how good a choice the school authorities made, for he has provided St. George's Hospital with a series of valuable pathological material which for duration and completeness is probably unmatched, reaching as it does in unbroken continuity from 1844 down to the present day. The museum of St. George's Hospital does not of course contain Hunter's preparations, but it is rich in those of Brodie—many of them put up by Hewett's hands,—and to these he added in after years many more of the greatest surgical interest from his own practice. In due course he became anatomical lecturer, and the practical head of the school. In this latter respect he was unwearied, and the renewed prosperity of the school (which had much declined after the withdrawal of Sir B. Brodie) soon testified to the efficiency of his management. As a lecturer, both on anatomy and afterwards on clinical surgery, he was excellent, an unfailing mastery of his subject being joined to a ready elocution, a power of clear exposition, and a wealth of illustration which enchained the most languid attention and penetrated the dullest apprehension. And afterwards, when he was called on to take on himself the responsible duties of the hospital surgeon, the same high qualities were shown in a still stronger light. Sir Prescott Hewett might not, perhaps, be a highly original theorist, but as a practical surgeon he had few equals. He studied his cases minutely. He did not shrink from any operative procedure, however severe or dangerous, when he had persuaded himself of its necessity, and he never came to a difficult operation without having, as it seemed, rehearsed the whole matter in his mind; so that he was never taken by surprise or flurried, and all went on with that matter-of-course smoothness which veils the most perfect surgical art. And in another way Sir P. Hewett realised the perfect ideal of a surgeon—namely, in the way in which he identified himself with his patient. He thought nothing troublesome, and nothing trivial, by which the success of a case—i.e., the safety and ease of the patient—could be promoted; and many will remember the heartiness with which he would shake hands with a man as he gave him his discharge from the hospital after a long and doubtful struggle for life. This kindly sympathy and unwearied solicitude for their welfare naturally endeared him to those whom he met as private patients, many of whom still survive to bless the memory of him to whom they owe limb or life, such as the great artist whose right hand he saved from amputation after a gun accident, and succeeded in restoring it to bewitch more than one generation with its marvellous work. Yet, though no one was more popular among his patients than he, nor more deservedly so, and though he had several friends in very influential positions, it yet remains a fact that his success in private practice was slow, and that while men far inferior to himself came rapidly to the front, he had to endure a long and bitter struggle with comparative failure, before he could look on his position as being established. Once, however, that his great merits had become as well known as those of contemporaries more skilled than he cared to be in the subtle art of becoming famous without advertisement, he rose rapidly in public estimation, and then in the favour of royalty. The death of Sir W. Fergusson gave an opportunity for his promotion to the rank of sergeant surgeon extraordinary, and, that of his old friend and teacher, Mr. Cæsar Hawkins, to that of sergeant-surgeon. By this time he had gained all the prizes which the profession has to offer, and, as he was not the man to lag on the stage till his juniors should push him off, he began to contemplate retirement. He was of singularly active habits—more able to endure fatigue at the age of seventy than most men of sixty; an enthusiastic lover of the country, and one to whom the beauties of Nature furnished an inexhaustible mine of subjects for his pencil. So that it is

no wonder that he should have retired from London while his health was yet unbroken and his eye undimmed. In 1882 he accepted a baronetcy, and changed his residence to Horsham. But he was often in London, and was ever ready to assist his old hospital or his old friends with advice and assistance in any worthy undertaking; and few men, we are happy to think, ever had less reason to regret having abandoned their more active occupations. The close of his life was a period of severe trial—first, in consequence of the sad illness of one of the nearest and dearest of his family, and then the most painful affection (probably malignant disease of the stomach) which gradually prostrated his own strength, complicated by an attack of influenza with pulmonary congestion. All this he endured with the uncomplaining fortitude which was part of his nature; but his friends witnessed the agonies which he did his best to conceal, and may well feel that it is better for him that he is not stretched out longer on the rack of this tough world. Few men have ever left the world with a more stainless record of duty honestly done and of success won by no ignoble means.

Sir P. Hewett was not a voluminous writer—in fact, he seemed to have a dislike of seeing himself in print. No persuasion would induce him to publish the profound and admirable lectures on the surgical affections of the head which he delivered at the Royal College of Surgeons; and this is a real loss to surgical literature, for the researches on which they were based were most extensive, and the results were of the highest value for practical surgery. And his other contributions, scattered through the series of the Royal Medical and Chirurgical, Pathological, and Clinical Transactions, the St. George's Hospital Reports, and the medical journals are more remarkable for their value than their number. The article on "Injuries of the Head" in "Holmes's System of Surgery" is perhaps the most complete product of his pen, and gives an admirable view of the subject, as far as its practical conclusions remain unmodified by modern advances in operative surgery. We may regret (and those who knew best Sir P. Hewett's knowledge of surgery will regret the most) this scantiness of his literary productions; but it was part of the man's nature. He hated display, and despised puffing, and so he shrank, perhaps too much, from publishing his experience or opinions. It would have been better for us had it been otherwise; but the world does not seem likely in the present day to suffer much from any morbid dread of advertising, and few will repeat Hewett's error. It is the only error we can point out in one of the noblest and brightest careers in the surgical world of our time.

ROBERT MACK, L.R.C.S.I., L.S.A.

WE regret to record the death of Mr. Robert Mack, which occurred at his residence, 28, St. Paul's-road, Canonbury, on the 8th inst. Born at Lisburn, Antrim, of an old Ulster stock, in 1829, he received his medical education in Dublin. After acting for a time as house surgeon and house physician at the Richmond and Whitworth Hospital, he came to London in 1851. In 1857-58 he held the post of surgeon to the Tower Hamlets Dispensary, and settled as a general practitioner in Canonbury in 1858. Here he acted for many years as surgeon to the Holloway and North Islington Dispensary. He was also a member of the Islington Medical Society and the Æsculapian Society. A man of much intelligence and energy, Mr. Mack enjoyed the reputation of being one of the most successful practitioners in his district. In him the medical profession in Islington has lost a much and justly valued member. There were traits in his character which, above and beside his mere professional knowledge, must command respect and admiration wherever men are found. It is, in fact, the possession of what we call character which made his presence when alive an unmistakable personality, and has rendered his absence in death a conscious loss to all who knew him. The shrewd penetration, the firm will, the scorn of baseness, the love of right and of good, the kindly native humour, and the helpful spirit which never turned away from a friend's need, will ever be associated with the form which many can so well remember; and the record of much and skilful work, which for the most part found no larger audience than the circle of his professional neighbours, will remain with them as a memorial of his insight, his resource, and his manly self-reliance.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following gentleman having passed the necessary examination, and having conformed to the by-laws and regulations, was at an extraordinary meeting of the Council on Thursday, the 25th inst., admitted a Member of the College:

Brown, Frederick James, L.S.A., Bradford-street, Bolton.

UNIVERSITY OF OXFORD.—At a recent congregation the following degrees were conferred:—

M.D.—Arthur M. Jackson, Queen's; and Frederick A. Dixey (Fellow), Wadham.

M.B.—Edward T. Withington, Balliol; Alexander B. Roxburgh, Exeter; George Jones, Oriel; Alfred M. Gossage, Magdalen; Charles P. Lovell, St. John's; Lewis E. Parkhurst, Jesus; Edward J. Moore, Christ Church; and Frederick H. Burton-Browne, Magdalen.

UNIVERSITY OF CAMBRIDGE.—At a congregation held last week the following degrees were conferred:—

Doctors of Medicine.—Lawrence Humphry, Trinity; William Arthur Foxwell, St. John's; Charles Eardley Dumbleton, Peterhouse; Walter Knowsley Sibley, Pembroke; George Fuller Ashbridge England, Walter Horace Goddard, Gonville and Caius; and George Hutchinson Miles, Downing.

Bachelor of Medicine.—Ernest Henry Richmond Watts, St. John's.

Bachelors of Medicine and Bachelors of Surgery.—Andrew Hallidie Smith Hallidie, King's; Stanley Lewis, St. John's; William Robson Carter, Robert Hardwick Hall, Cecil Latter, Pembroke; Hugh Kerr Anderson, Charles Simmons Bennetts, Gordon Calthrop, Herbert Thomas Crosby, James Lea, Herbert William Nix, John Charles Ryder Richardson, Edward Ernest North Surridge, Joseph Henry Wilks, Gonville and Caius; Alexander Miller, Queen's; Stamford Grant Felce, Jesus; George Wilkinson, Emmanuel; William Lawrence Woodward Buss, Sidney Sussex; William Henry Beaumont, Charles Stuart Pethick, Albert Francis Richards, Downing; Robert Stephen Earl, John Fisher, Karl Cardwardine Gimson, Charles Gordon Roberts, and Horace Savory, Cavendish Hostel.

THE INTER-HOSPITAL CUP TIE.—At Richmond Cricket Ground on Monday last the semi-final of the inter-hospital cup tie was played by the representatives of the Charing-cross Hospital and those of King's College. From the results of the game it is obvious that King's men were most unequally matched with their competitors from Charing-cross. Some heavy scoring took place on the part of the Charing-cross men—Wright making 85, Escombe 54, Agnew 45, Russel 32, and Thomas 16, the result of the whole innings amounting to 276 runs. On the side of King's College the highest scorers were—Robardt 23, and Adams 16. None of the other players reached double figures, and the innings terminated with a score of 92 runs. This result bodes well for Charing-cross Hospital players in the final cup tie, which has yet to be played against Guy's Hospital.

UNITED HOSPITALS ATHLETIC SPORTS.—The twenty-fifth annual meeting of the United Hospitals Athletic Club took place on the Stamford-bridge course on Tuesday, June 23rd. Despite the threatening weather and a very small attendance, the sports proved a great success. The performances were in most cases distinctly above the average, the hospital record being broken in no less than three events—namely, the Long Jump, the Mile, and the Three Miles. The Challenge Shield was, for the seventh time, won by St. Bartholomew's, with seven first prizes and two second, B. C. Green being the principal contributor. Mrs. W. Anderson distributed the prizes from the pavilion, and the meeting closed with the usual cheers. The following are the events and the winners:—Half-mile Challenge Cup: A. Hay, St. Bartholomew's (time, 2 min. 4½ sec.). Hundred Yards, final heat: B. C. Green, St. Bartholomew's (time, 10¾ sec.). Putting the Shot: J. Rolfe, London (distance, 32 ft. 10 in.). 120 Yards Hurdle Race, final heat: B. C. Green, St. Bartholomew's (time, 16¼ sec.). Long Jump (hospital record, 21 ft. 2½ in.): B. C. Green, St. Bartholomew's (distance, 21 ft. 10 in.). 220 Yards, final heat: B. C. Green, St. Bartholomew's (time, 23 sec.). Throwing the Hammer: J. S. Mackintosh, St. Bartholomew's (distance, 89 ft. 11 in.). One Mile Challenge Cup (hospital record 4 min. 36¼ sec.): H. A. Munro, Guy's (time, 4 min. 34½ sec.). High Jump: S. Langton, St. Mary's (5 ft. 5½ in.). 440 Yards Challenge Cup: W. G. Richards, St. Bartholomew's (time, 51⅘ sec.). Three Miles Challenge Cup (hospital record 15 min. 52 sec.): H. A. Munro, Guy's (time, 15 min. 47½ sec.). 220 Yards Open Handicap, final heat: W. Basan, L.A.C. (2 yards).

SUPERANNUATION GRANT.—Mr. Thomas Damant, L.R.C.S. Edin., lately medical officer for the third district of the Aylsham Union, has been granted a superannuation allowance of £20 per annum.

BENEFACTION TO MANX CHARITIES.—Mr. Henry Bloom Noble, of Douglas, Isle of Man, who a few years ago presented the town of Douglas with a hospital, at the cost of £10,000, has, through the Dean of Norwich, presented another sum of £10,000 to the island—£5000 of which is to be appropriated to the formation of a Convalescent Hospital.

IN MEMORIAM.—A handsome memorial window to the late Drs. Matthew and Alfred Jackson (father and son) has been erected in the south aisle of the parish church of Market Weighton by members of the family and several friends. The deceased had practised in Market Weighton and the neighbourhood for upwards of fifty years.

BEQUESTS.—Mrs. Jackson Browne bequeathed £50 to the Adelaide Hospital, Dublin.—The Rev. P. Segrave bequeathed £300 to Jervis street Hospital, Dublin, and £200 to each of the following Dublin charities: Female Blind Asylum, the Deaf and Dumb Institution, and St. Vincent's Hospital.

DISTRIBUTION OF PRIZES.—The distribution of prizes and scholarships to the successful students of the *Middlesex Hospital* Medical School will take place on Tuesday next, the 30th inst. at 3 P.M. Earl Spencer, K.G., will preside on the occasion. At *Guy's Hospital*, on Wednesday, July 8th, at 3.30 P.M., J. A. Shaw Stewart, Esq., will distribute the prizes; and at *Charing-cross Hospital* that function will be discharged on Wednesday, July 1st, by the Right Hon. the Lord Carrington, at 4 P.M. precisely.

MEDICAL PRACTITIONERS' UNION.—A meeting of the executive committee of the Union was held at the offices, Threadneedle-street, on the 17th inst., at which twenty-five registered practitioners were elected members. It was resolved to convene a general meeting of the members at Exeter Hall (council room) on July 7th, for the purpose of discussing the general question of hospital management and the reforms which are called for in the interests of general practitioners, to all of whom the meeting will be open on presentation of card.

ORDER OF ST. JOHN OF JERUSALEM, COMMEMORATION SERVICE.—The annual commemoration service of this Order was held yesterday—the festival of St. John the Baptist—by permission of the Queen, in the Chapel Royal, Savoy. A considerable number of knights, ladies, and associates, wearing the insignia of the Order, were present. The sermon was preached by the Rev. Teignmouth Shore, Canon of Worcester. Sir Edmund Lechmere, the Chancellor of the Order, presided at the luncheon at the Albion Tavern, and at the general assembly, which by the kind permission of the Rev. Canon Elwin, Master of the Charterhouse, was held in the Governors' Room of that venerable institution.

NEW CHILDREN'S HOSPITAL, EASTBOURNE.—This town was *en fête* on Saturday, on the occasion of the Prince and Princess of Wales (accompanied by two of their daughters) formally opening the new Children's Hospital at Meads, and also the wing for juvenile patients recently added to the Princess Alice Memorial Hospital. The former building adjoins All Saints' Convalescent Home, at the foot of Beachy Head Slope, and has been erected in memory of the late Harriet Brownlow Byron, foundress of All Saints' Community of Sisters of the Poor. The Princess received purses from ladies towards the funds of the institution. Later the Prince opened the new Children's wing of the Princess Alice Hospital.

PRESENTATIONS.—Mr. Rowland Hills, M.R.C.S., L.F.P.S.Glag., of Conisborough, Rotherham, on his leaving that village, where he had been in practice for twenty-five years, to undertake the medical officership of the Infant Orphan Asylum at Wanstead, and also that of the Forest Schools, in union with King's College, at Walthamstow, has been presented by the inhabitants of Conisborough and district with a silver salver, silver tea kettle, and silver salt-cellars as tokens of esteem.—Mr. Edward Pope, M.R.C.S., of Tring, Hertfordshire, on his retirement from the profession, has been presented by the members of the Loyal Sincerity Lodge I. O. O., Tring, with a handsome zebra-wood spirit stand, in appreciation of his forty-eight years' services as lodge surgeon.

LINCOLN COUNTY HOSPITAL.—At Lincoln, on Saturday, Mr. Joseph Rushton, the High Sheriff of the County, laid the foundation stone of a new ward, as an addition to the County Hospital, which will provide accommodation for children (a long-felt want). Mr. Rushton has generously undertaken to defray the entire outlay, estimated at about £4000.

ROYAL ALEXANDRA HOSPITAL FOR SICK CHILDREN, BRIGHTON.—This charity has now been in existence twenty-two years, and from its commencement in 1869 has been constantly enlarging the area of its usefulness. During the year 1890 there had been a considerable increase of in- and out-patients. The financial position was satisfactory. Although to this point successful and progressive, there is a new demand on the resources of the institution. Its increasing work is cramped for room, even in the present large building, and alterations and improvements, affording more accommodation, had almost become an imperative necessity.

MEDICAL NOTES IN PARLIAMENT.

Royal British Nurses' Association.

IN the House of Commons on the 18th inst, Sir Michael Hicks-Beach, in reply to Mr. Paulton, said that, after careful consideration of the application of this Association, he had been unable to satisfy himself that the means proposed to be adopted by the Association were adequate to carry out its objects. He was not aware of any grounds for reconsidering the matter.

New University for London.

On the 19th inst., in answer to Sir Walter Foster, the Vice-President of the Council said: "A joint representation has been received from the Royal Colleges of Physicians and Surgeons asking for an extension of time for lodging their case in the matter of the petition of University College and King's College for the grant of a charter to establish a Teaching University for London, and they have been informed that it is not desirable that any further delay should take place. The petition and draft charter have been before the Privy Council and the public for nearly four years, the whole question has been considered and reported on by a Royal Commission, and a month's notice was given to all parties to prepare their cases." After some other questions, Sir W. Hart Dyke invited hon. members to talk the matter over with him at the Treasury, in order to see what could be done to extend beyond the 22nd inst. the time allowed for lodging objections.

National Institute of Preventive Medicine.

In the House of Commons on the 20th inst., Sir H. Roscoe asked the President of the Board of Trade whether he had decided to grant the application of the committee of the National Institute of Preventive Medicine to become incorporated under the Companies Act, with the omission of the word "limited," in view of the amended proposals which had been placed before him.—Sir M. Hicks-Beach: The amendment of the proposed memorandum of association referred to by the hon. member (by which it is made clear that the grant of the licence now asked for would not in any way imply approval by the Board of Trade of experiments upon living animals, or of any application to the Home Secretary for a licence for that purpose) is, no doubt, an important change in the proposals of the institute, and will probably meet the objection stated to the deputation which lately waited upon me. There are, however, one or two other points requiring consideration, but I hope shortly to be able to arrive at a decision on the subject.

Disinfection.

On the 24th inst. Mr. Stephens asked the President of the Local Government Board whether as the value of certain of the powers of the Public Health (London) Bill depended upon the efficacy of processes of disinfection, and as there existed no clear understanding of the word, he would include in the "interpretation of terms" used in the Bill a reasonable indication of the processes of purification or attempted purification referred to by "disinfection."—Mr. Ritchie: I think that it would be very undesirable to attempt to set out in an Act of Parliament the different processes of disinfection, which it is obvious must vary to a considerable extent according to circumstances.

The Leeds Vaccination Case.

In the House of Commons on Thursday, June 25th, Mr. Summers asked the President of the Local Government Board whether he would lay upon the table of the House a copy of the report of Dr. Ballard, Medical Inspector of the Local Government Board, on the case of Emily Maud Child, who died at Leeds on July 1st, 1889, of vaccino-syphilis.—Mr. Ritchie replied that it was not the practice of the Local Government Board to give publicity to the reports of their inspectors, which had always been regarded as of a confidential character, but he had thought it right to submit this particular report to the Royal Commission on Vaccination now sitting, and he understood that the report had been under their consideration, and that the question of the relation of the death to vaccination is still under investigation by the Commission. Mr. Summers asked whether it was not the fact that this report had been submitted to the Royal Commission in confidence, and that they had no power to publish it.—Mr. Ritchie replied that if the Royal Commission desired to insert this document in their report, they would be perfectly able to do so.—Mr. Summers: Will the Local Government Board make no objection?—Mr. Ritchie: No.

Another Vaccination Case.

Sir William Harcourt, Mr. Morton, and other members questioned the Home Secretary as to the case of a woman named Lydia Cook who, in respect of an offence against the Vaccination Act, had been sentenced by the Southend Bench of Magistrates to a fine of 1s. and £1 2s. 6d. costs, or, in default, to seven days' imprisonment.—Mr. Matthews said that the woman had objected to the vaccination of her

child on the ground that her husband did not wish it because their family was consumptive. The Bench found there was no evidence as to the suggestion of consumption, and the medical officer had reported that the child presented a proper and desirable case for vaccination. He had recommended the Bench to remit the costs.

THE METROPOLITAN HOSPITALS INQUIRY.

THE Committee resumed its sittings on Monday last, and continued to take evidence on the condition of the hospitals under the management of the Metropolitan Asylums Board.

Metropolitan Asylums Board.

Mr. Mann, clerk of the Asylums Board, in the course of his evidence, stated that he did not think the fact that clinical instruction is imparted at these hospitals was very widely known. They had had as many as fifteen students during the past session, coming chiefly from St. Bartholomew's Hospital. The system had been so shortly initiated that it was difficult yet to say whether students were likely to take advantage of it. After giving details of the staff, he quoted figures illustrative of the amount of work undertaken by these asylums. During the ten years ending 1889, 34,433 fever cases were under treatment, and 26,357 cases of small-pox. The numbers showed considerable variation; thus in 1880 the fever cases numbered 2464; in 1887 6537, and in 1889 5772, including 722 diphtheria cases. The particulars of small-pox also showed a marked variation. Thus from 1879 the figures were in each year, 1982, 8551, 1799, 598, 6363, 6146, 99, 56, 62, and in 1889 only 5 cases were under treatment. The witness attributed the great decrease to the entire removal of the small-pox treatment to the small-pox ships on the river. The cost of the various institutions varied according to the locality. Thus the Eastern Hospital with 300 beds cost 3s. 6d. a bed on the daily average, whereas the South-Western with 140 beds cost 4s. 4d. The Northern Convalescent Fever Hospital with 412 beds cost 2s. 6d. per bed daily.

Bethnal Green Infirmary.

Mr. William Tullet Howard, clerk of the Guardians of Bethnal Green parish, admitted that for several years the workhouse had been very much overcrowded, but the question of building a new one had been before the guardians for the last six or seven years, certainly not more than ten years, the delay having been due to the difficulty of obtaining a site. The Chairman: Dr. Knox was asked the following question:—I am afraid that you enjoy at Bethnal Green the reputation of being the very worst institution of the kind, and he answered that that was the case, and that the whole thing ought to be abolished. Are you of that opinion? Well, you see we have no separate infirmary. It is a workhouse, and it has been built for forty or fifty years, and I daresay it is not up to the present date.—Lord Kimberley: It appears by Dr. Bridge's evidence that you have space for 495 beds, and that sometimes you have as many as 596 inmates. Do you suppose that there is any workhouse or infirmary in London in that disgraceful condition? I do not know.—Do you think it likely? It is possible, I think, but not to the same extent.—Do you not think it is a very crying evil? I think not.—Is it the opinion of your guardians that it is not an evil? Oh, we all admit that.—I ask, is the present state of things not disgraceful? (The witness did not reply.) I may take it that the opinion of your board is that such a state of things is not discreditable? The opinion of the board is that they want a new infirmary, that they are overcrowded, but we cannot refuse to take people in and let them die at their homes.—That is our difficulty. The Guardians, perhaps, take it in this way, that it is a discreditable state of things, but that it is not their fault?—Yes, that would be their argument. By Lord Thring: He did not know anything about the internal arrangements of the workhouse, and therefore could neither affirm nor deny the statement of the medical officer that there were eighty pauper women assisting in the nursing. Pauper nurses had not been recognised by the board. Dr. Knox had never made any official complaint as regards the scanty nursing, or anything of the kind.

Whitechapel Union.

Mr. William Vallance, clerk to the Whitechapel Union, was the next witness. His evidence was generally of a similar nature to foregoing witnesses. In his opinion it was very desirable indeed that there should be a clear understanding as to what class of cases was suitable for admission into the general hospital and into the poor-law infirmary respectively. He had often felt that it would be advisable to have some qualification of disease for admission to general hospitals, without any reference to poverty at all, by which the cases from the infirmary could be transferred to the general hospital.

Poplar Hospital.

Mr. F. M. Corner, M.R.C.S., a general practitioner from the East-end of London, and surgeon to the Poplar Hospital, said that the practitioners in that district of London felt that great abuses existed, especially in connexion with the out-patient department of hospitals. He supported the agencies which were formed in that district under the supervision of the Charity Organisation Society of dealing with such cases. Doctors' shops had multiplied very greatly within the last ten years—such dispensaries as charged 6d. for consultation, including medicine. He had no serious objection to them, because in one sense he thought they did good, and had abolished the practice of druggists prescribing for patients. He did not think that the patients got value for their money.—The Chairman: Still, as regards the right—a man has as much right to start a doctor's shop as he has to start a shop for any other purpose?—I am afraid the feeling on that point varies. If medical men were to come to an understanding among themselves, it would be quite easy for them to get double the fees they now get.—Lord Kimberley: They want a doctors' union!—In 1889 325 patients were brought into the Poplar Hospital under the influence of drink, and in 1890 493 cases occurred. A great many assault cases came there also, probably due to the same cause—in 1889 710 cases, and in 1890 676. This statement showed that a large amount of the earnings of these patients went in the consumption of drink.

Westminster Ophthalmic Hospital.

Mr. F. Beattie Campbell, the secretary, gave evidence to the effect that this hospital was founded in the year 1816. Patients came to it from every part of London. So far as Charing-cross Hospital was concerned, there was cooperation between them in regard to ophthalmic cases. The hospital contained thirty beds, but the attendances at the out-patient department would number about 10,000 per annum. The expenditure last year was £2169, and the income £2272. From donations they received £940, from annual subscriptions £670, Hospital Sunday Fund £116, and from the Hospital Saturday Fund £124, dividends £341, and incidentals £82. Last year they had not received a single legacy. This was the first hospital to establish the principle of relieving the poor without letters of recommendation. Patients came to them from almost all the hospitals in the town. Last year fifty-eight students attended the hospital; fifty-one were qualified practitioners, and seven students unqualified.

The Committee then adjourned until Monday next.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET *Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.*

BARNARD, J. H., M.D. Paris, M.R.C.S., has been appointed Honorary Physician to the Paris Branch of the Girls' Friendly Society.

BATELY, JOHN, M.D. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer for the Gorleston District of the Great Yarmouth Union.

BLACK, GEO., M.B., C.M. Aberd., has been appointed Medical Officer for the Burrowby-cum-Gueldable Townships.

BLAKISTON, A. A., M.R.C.S., has been reappointed Medical Officer of Court Central Somerset, No. 3604, A.O. Foresters.

BRYANT, J. H., M.B., B.S. Lond., has been appointed House Physician to Guy's Hospital.

CARPENTER, A. B., M.B. Oxon., L.R.C.P. Lond., has been appointed Medical Officer to the Croydon General Hospital.

CARRUTHERS, CHAS. L., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Visiting Surgeon to the Gaol at Bilocia, near Sydney, Australia.

CHAPMAN, CHAS. WM., M.D. Durh., M.R.C.P. Lond., M.R.C.S., has been appointed Honorary Physician to the Farringdon General Dispensary.

COLBY, J. G. E., M.B., B.S. Oxon., L.R.C.P. Lond., F.R.C.S., has been appointed Medical Officer of Health for the Malton Rural and Urban Sanitary Districts, vice Young, deceased.

COOMBE, RUSSELL, M.A. Cantab., F.R.C.S., has been appointed Surgeon to the West of England Institution for Deaf and Dumb Children, Exeter, vice Tosswill, resigned.

CRANSTONE, W. L., M.R.C.S., has been appointed Public Vaccinator for the Swan Hill District, Victoria, Australia.

DREW, HENRY W., F.R.C.S., has been appointed Surgeon to the Croydon General Hospital.

FORSBROOK, W. H. RUSSELL, M.B. Lond., M.R.C.S., has been appointed Consulting Medical Officer in London to the Government of the Cape of Good Hope.

FORSTER, J. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Second Division of the Hougham District of the Dover Union.

GADDES, THOMAS, M.D., L.D.S. Eng. & Edin., has been appointed Lecturer on Dental Histology and Microscopy in, and Dean of the Faculty of, the Dental Department of the University of Denver, Colorado.

GIBBENS, F. E., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer of Health for Barking, vice Lee, resigned.

GIBSON, C. P., L.R.C.P. Edin., M.R.C.S., has been reappointed Medical Officer for the Wetherby Rural Sanitary District.

HARRIS, FRED. S., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator in South Australia.

HEALE, ALFRED L., L.R.C.P. Lond., M.R.C.S., has been appointed a Public Vaccinator for the District of Gisborne, New Zealand.

HEMBROUGH, J. W., M.D. Durh., M.R.C.S., has been appointed Medical Officer of Health for the Rural Sanitary District of the Tynemouth Union.

HERRON, R. T., L.R.C.P. Edin., L.R.C.S. Irel., has been appointed Medical Officer of the Union Workhouse, Armagh, and Consulting Medical Officer of Health for the Armagh Rural District, vice Fraser, deceased.

JACKSON, ARTHUR, M.R.C.S., has been reappointed Honorary Surgeon to the Sheffield General Infirmary.

KEMBLE, ARTHUR C., L.R.C.P., L.R.C.S. Edin., has been appointed Certifying Surgeon under the Factory Act for the Poole District, vice F. C. Compton, resigned.

KENDALL, TH. M., L.R.C.P., L.R.C.S. Edin., has been appointed Medical Officer to the Water and Sewerage Board, Sydney, New South Wales.

KINGSFORD, EDWD., F.R.C.S. Eng., has been reappointed Medical Officer for the Shepperton Sanitary District.

KITCHING, C. M'G., M.B., B.S. Lond., has been appointed House Physician to Guy's Hospital.

LAING, ROBT., L.R.C.P. Edin., M.R.C.S., D.P.H. Camb., has been reappointed Medical Officer of Health for the Cowpen Sanitary District.

LAKEMAN, THOS., L.R.C.P. Lond., M.R.C.S., has been appointed Medical Officer and Public Vaccinator for the Parishes of Ugborough and North Huish, vice Harris.

LEA, A. W. W., M.B., B.S. Lond., has been appointed Junior Resident Medical Officer to the General Hospital for Sick Children, Pendlebury, Manchester, vice Westmacott.

LEAKEY, C. M., L.S.A., has been appointed Medical Officer for the Second Caistor District of the Caistor Union.

MACLEOD, D. T., M.B., C.M. Glasg., M.R.C.S., has been appointed a Public Vaccinator in South Australia.

MARRIOTT, C. W., M.D., M.R.C.P. Lond., F.R.C.S. Ed., has been appointed Honorary Consulting Surgeon to the Warneford Hospital, Leamington.

MOLONEY, PATRICK J., L.K.Q.C.P. Irel., has been appointed Acting Government Medical and Health Officer for Geraldton, Queensland.

MORCOM, A., L.R.C.S., L.M. Edin., has been reappointed Medical Officer for the Luton Rural Sanitary District.

MORRISON, GEO. E., M.B., C.M. Edin., has been appointed Resident Surgeon to the Ballarat Hospital, Victoria, Australia.
NURSE, J. S. M., M.B., C.M. Edin., has been appointed Medical Officer of Health for Anguilla, West Indies.
OLIVER, MATTHEW J., M.B., C.M., D.P.H. Edin., has been appointed Medical Officer for the County of Roxburghshire.
PENNY, HENRY J., L.K.Q.C.P., L.R.C.S. Irel., has been appointed Public Vaccinator for the Port Fairy, Victoria, Australia.
POWNE, L., M.R.C.S., has been reappointed a District Medical Officer of the Crediton Union.
RICE, BERNARD, M.D. Lond., M.R.C.S., has been appointed Honorary Surgeon to the Warneford Hospital, Leamington, vice Dr. Marriott, resigned.
SCOTT, A. W., M.D. Brussels, M.R.C.S., has been appointed Medical and Vaccination Officer for the Handsworth Urban Sanitary District.
SMALE, MORTON A., M.R.C.S., L.D.S., has been appointed Dental Surgeon to St. Mary's Hospital, Paddington.
SNELL, SIMEON, L.R.C.P. Lond., M.R.C.S., has been reappointed Honorary Ophthalmic Surgeon to the Sheffield General Infirmary.
STEVENS, T. G., M.B., B.S. Lond., has been appointed House Surgeon to Guy's Hospital.
STEWART, HUGH GEO., M.B., C.M. Glasg., has been appointed a Public Vaccinator in South Australia.
SWIFT, HARRY, M.D. Camb., M.R.C.S., has been appointed Honorary Assistant Physician to the Adelaide Hospital, South Australia.
TAYLOR, FRANK, M.A., M.B. Cantab., has been appointed Medical Officer to the Crystal Palace Gas Company, vice W. R. Brunton, resigned.
TAYLOR, S. T., M.B. Lond., L.R.C.P., M.R.C.S., has been reappointed Medical Officer for the Erpingham Rural Sanitary District.
THOMPSON, J. A. B., M.D., L.M., F.P.S. Glasg., has been appointed Medical Officer for the Fourth District of the Ongar Union.
TINDALE, W. R., M.B., C.M. Aberd., L.R.C.P. Lond., M.R.C.S., has been reappointed Medical Officer for Hampton Hill, of the Kingston Union.
WARD, GEO. S., L.R.C.P., L.R.C.S. Edin., has been reappointed Medical Officer for the Stevenage Urban Sanitary District of the Hertford Union.
WARREN, SYDNEY, L.S.A. Lond., has been appointed a Public Vaccinator in South Australia.
WATKINS, ERNEST POWELL, L.R.C.P., has been appointed Resident Medical Officer to the Nottingham Friendly Societies, vice F. C. Wood, resigned.
WEBSTER, TREVOR, M.R.C.S., has been appointed Medical Officer of Health for the Bewdley Urban Sanitary District of the Kidderminster Union.
WELLFORD, F., M.B. Cantab., has been appointed House Surgeon to Guy's Hospital.
WESTMACOTT, F. H., M.R.C.S., L.R.C.P., has been appointed Senior Resident Medical Officer to the General Hospital for Sick Children, Pendlebury, Manchester, vice R. O. Bowman, resigned.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement.

BLOOMSBURY DISPENSARY, 22, Bloomsbury-street, London, W.C.—Dispenser. Salary £100 per annum.
BOROUGH OF BLACKPOOL.—Medical Officer of Health for the Borough. Salary £300 per annum.
CAMBRIDGE FRIENDLY SOCIETIES' MEDICAL ASSOCIATION.—Assistant Medical Officer. Stipend £120 a year. (Apply to the Secretary, 20, Mawson-road, Cambridge.)
CHELSEA HOSPITAL FOR WOMEN, Fulham-road, S.W.—Anæsthetist.
CUMBERLAND INFIRMARY, Carlisle.—Assistant House Surgeon for one year. Salary £40 per annum, with board, lodging, and washing.
DORSET COUNTY ASYLUM.—Assistant Medical Officer at the Second Asylum. Salary £120 per annum, with board and furnished apartments.
DURHAM COUNTY HOSPITAL.—House Surgeon. Salary £100 a year, with board and lodging.
EAST SUFFOLK AND IPSWICH HOSPITAL.—Assistant House Surgeon. Salary £20 per annum, board, lodgings, and washing allowed.
GENERAL INFIRMARY AT GLOUCESTER AND THE GLOUCESTERSHIRE EYE INSTITUTION.—House Surgeoncy. Salary £100 per annum, with board, lodging, and washing.
GUY'S HOSPITAL, S.E.—Five Assistant Dental Surgeons.
HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Brompton.—House Physicians.
HORTON INFIRMARY, Banbury.—House Surgeon and Dispenser. Salary £60 per annum, with board and lodging.
LUNATIC HOSPITAL, The Coppice, Nottingham.—Assistant Medical Officer. Salary £100 a year, with board, apartments, attendance, and washing.
METROPOLITAN DISPENSARY, Cripplegate.—Resident Medical Officer. Salary £150 per annum, with residence and an allowance for coals and gas.
MILLER HOSPITAL AND ROYAL KENT DISPENSARY, Greenwich, S.E.—Junior Resident Medical Officer. Salary £30 per annum, with board, attendance, and washing.
NATIONAL SANATORIUM FOR CONSUMPTION AND DISEASES OF THE CHEST, Bournemouth.—House Surgeon and Secretary. Salary £120 per annum, with board and lodging.
ROYAL SOUTH HANTS INFIRMARY, Southampton.—Assistant to the House Surgeon. No salary, board and rooms provided.
ST. THOMAS'S HOSPITAL MEDICAL SCHOOL, S.W.—Demonstrator of Physiology. Salary £100.
TUNBRIDGE WELLS GENERAL HOSPITAL.—Resident House Surgeon. Salary £100 per annum, with board, furnished apartments in the hospital, gas, firing, and attendance.
WANDSWORTH AND CLAPHAM UNION AND INFIRMARY, St. John's-hill, near Clapham Junction.—Junior Assistant Medical Officer for six months. Board, lodging, and washing provided, and £25 at the end of the term.
WESTERN GENERAL DISPENSARY, Marylebone-road, N.W.—Second House Surgeon. Salary £50, with board, residence, and attendance

Births, Marriages, and Deaths.

BIRTHS.

BOURKE.—On June 20th, at Redcliffe-square, S.W., the wife of Isidore Mac William Bourke, M.D., of a daughter.
CLARKE.—On June 22nd, the wife of Thomas Furze Clarke, M.R.C.S., of Horsmans-place, Dartford, of a son.
DEANE.—On June 19th, at Pennant, Abermule, Montgomeryshire, the wife of Surgeon W. Deane, I.M.D., of a daughter.
DINGLEY.—On June 21st, at 11, Upper Woburn-place, W.C., the wife of Allen Dingley, F.R.C.S., of a son.
HORSLEY.—On June 18th, at 33, Seymour-street, the wife of Victor Horsley, F.R.S., of a son.
HOWARD.—On June 14th, at Queen Anne-street, Cavendish-square, the wife of R. J. B. Howard, F.R.C.S., of a son.
SNOW.—On June 19th, at Gloucester-place, Portman-square, the wife of Herbert Snow, M.D. Lond., of a son.
SMITH.—On June 18th, the wife of Gerard Smith, M.R.C.S., Craigholm, Upper Clapton, of a daughter.
TUKE.—On June 20th, at Chiswick, the wife of T. Seymour Tuke, M.A., M.B., of The Manor House, Chiswick, and Albemarle-street, W., of a son.

MARRIAGES.

BROWN—FULTON.—On June 17th, at St. Mary's Church, Acton, James Brown, M.B., of Tring, son of the late Andrew Brown, M.D., of Weymouth, to Katharine Anne, youngest daughter of the late Hamilton Henry Fulton, of Bedford House, Chiswick.
GAYE—ADYE.—On June 20th, at All Saints', Margaret-street, Arthur Charles Gaye, Brigade-Surgeon Medical Staff, to Ellen, younger daughter of the late Major-General Goodson Adye, of Leamington.
MILNER-BROWNE—COLLINGBOURNE.—On June 10th, at Holy Trinity, Coventry, by the Rev. F. M. Beaumont, Vicar, Charles Milner-Browne, M.B., B.S., of Kirkdale, Sydenham, S.E., to Maude Marion, youngest daughter of W. P. Collingbourne, Fernielee, Coventry.
OASTLER—BEDDOES.—On June 23rd, at St. James', New Brighton, by the Hon. and Rev. C. F. Cross, M.A., Vicar of Shortwick, assisted by the Rev. G. R. Sandars, of New Brighton, James Oastler, M.D., of Glasgow, to Norah, only daughter of the late Rev. T. L. Beddoes, LL.D., Rector of St. Mary's, Manchester.
WADE—WOOD.—On June 18th, at St. Mary's, Sawbridgeworth, by the Rev. Horace Rackham, Vicar of High Wych, assisted by Rev. H. Lipscomb, Newton Wade, M.R.C.S., L.R.C.P. Lond., of Ashwick Court, Oakhill, Bath, to Alice Mary, younger daughter of the late James Wood, of Ankerhills, Atherstone.

DEATHS.

ANDREWS.—On June 21st, at 11, Addison-terrace, Notting-hill, W., Louisa Augusta, wife of Henry Charles Andrews, M.D., and daughter of the late John Lord, Esq., of Calcutta and Hobart Town.
ARMSTRONG.—On June 19th, at Lincoln, Benjamin Armstrong, I.M., L.R.C.S. Irel., late of Barkwith House, Wragby, Lincolnshire, aged 39.
DONALD.—On June 20th, at Innellan, James Turner Donald, L.R.C.S. Edin., of Paisley, aged 59.
HEWETT.—On June 19th, at Chesnut Lodge, Horsham, Sir Prescott G. Hewett, Baronet, F.R.S., in his 70th year.
WOOLLEY.—On June 18th, at Heanor, Derbyshire, T. Starkey Woolley, M.R.C.S. and L.S.A., aged 53 years. Friends will kindly accept this the only intimation.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METROPOLITAN ASYLUMS BOARD.

Return of Patients remaining in the several Fever Hospitals of the Board at midnight on June 23rd, 1891.

Hospital.	Beds occupied. Scarlet fever.	Diphtheria.	Typhus fever.	Enteric fever.	Other diseases.	Total.	Total accommodation.
Eastern Hospital	175	51	2	35	..	263	442
North-Western Hospital	115	33	..	14	..	164	442
Western "	146	19	..	8	1	174	234
South-Western "	143	21	..	11	1	176	340
South-Eastern "	128	11	..	11	2	152	462
Northern "	144	15	..	..	..	159	480
Totals	851	152	2	79	4	1088	2201

SMALL-POX.—*Atlas* hospital ship, 4.

BOOKS ETC. RECEIVED.

ALCAN, FÉLIX, Paris.
De l'Exercice chez les Adultes. Par le Dr. F. Lagrange. 1891.

ALLMAN & SON, New Oxford-street, London.
Outline of a Course of Lectures on Human Physiology. By Ernest A. Parkyn, M.A. pp. 167.

BAILLIÈRE, TINDALL, & COX, King William-street, Strand, London.
Subjective Noises in the Head and Ears; their Etiology, Diagnosis, and Treatment. By H. Macnaughton Jones, M.D. 1891. pp. 152.

BAILLIÈRE, J. B., ET FILS, Paris.
Le Vegetarisme et le Régime: Végétarien Rationnel Dogmatisme, Histoire, Pratique. Par le Dr. Bonnejoy. 1891. pp. 341.

CHATTO & WINDUS, Piccadilly, London.
Glimpses of Nature. By Andrew Wilson, F.R.S.E., F.L.S. Illustrated. 1891. pp. 247. Price 3s. 6d.

CHURCHILL, J. & A., New Burlington-street, London.
Outlines of Medical Treatment. By S. Fenwick, M.D., and W. S. Fenwick, M.D., B.S. Lond. Third Edition. 1891. pp. 576.
St. Thomas's Hospital Reports. New Series, edited by Dr. Hadden and Mr. Anderson. 1891.

DETRE & BLACKBURN, North Seventh-street, Philadelphia.
Philadelphia Hospital Reports. Vol. I. 1890. Edited by C. K. Mills, M.D. pp. 353.

GRIFFIN, CHAS., & CO., Exeter-street, Strand.
A Text-book of Human Physiology, including Histology and Microscopical Anatomy. By Dr. L. Landois. With Additions by W. Stirling, M.D., Sc.D. Illustrated. Fourth Edition. Vols. I., II. 1891. pp. 558.

HIRSCHWALD, AUGUST, Berlin.
Atlas der Krankheiten der Mund und Rachenhöhle. Von Professor Dr. J. Mikulicz und Dr. P. Michelson. Probe—Heft. 1891.
Klinische und Experimentelle Studien aus dem Laboratorium. Von Professor V. Basch. I. Band. 1891.

JARROLD & SONS, Paternoster-buildings, London.
Jarrolds' Holiday Series. The Handbook to the Rivers and Broads of Norfolk and Suffolk. By G. C. Davies. Eighteenth Edition. pp. 173.

KEGAN PAUL, TRENCH, & CO., London.
Saturn's Kingdom; or, Fable and Fact. By C. M. Jessop. 1891. pp. 294.

LECROSNIER ET BABÉ, Paris.
Les Fonctions du Cerveau. Par Jules Soury. 1891. pp. 464.

LEWIS, H. K., Gower-street, London.
Illustrations of the Inductive Method in Medicine. By W. Murray, M.D., F.R.C.P. Lond. 1891. pp. 158.

RICHARDSON & Co., Great Russell-street, London, and Friar-lane, Leicester.
Oysters, and all about them. By J. R. Philpots, L.R.C.P. & S. Edin. Parts I. and II. 1890 and 1891.

SAMPSON LOW, MARSTON, & Co., St. Dunstan's House, London.
The Nursing Record Series, No. 2. Norris's Nursing Notes: a Manual of Medical and Surgical Information. By Rachel Norris, R.R.C. 1891; price 2s.—No. 3: A Manual of Practical Electrotherapeutics. By A. Harries, M.D., and H. N. Lawrence, M.I.E.E. With Photographs and Diagrams. 1891; price 1s. 6d.—No. 4: Massage for Beginners. By Lucy Fitch. 1891; price 1s.

The Limits of Competition; by M. Praschkaner, F.S.S. (published by the Author, 100, Fenchurch-street, London, 1891). — The Hahnemannian Monthly, March, 1891; edited by Drs. Bartlett, van Lennep, and van Baun (published at 1506, Girard-avenue, Philadelphia, by Gould & Son, London).—North London or University College Hospital: Report of the Surgical Registrar for 1889 (J. Truscott & Son, London, 1891).—Importanza della Zooparassitologia Medica e Specialmente degli Zooparassiti come Fattori di Malattie; dal Dott. Prospero Sonsino.—Notes on Perspective Drawing and Vision; by Dr. P. H. Emerson and T. F. Goodall (Warren Hall & Lovitt, Camden-road, 1891); price 6d. — Where to go for a Healthy Holiday, Summer or Winter: the Holiday Number of the London Medical Recorder, 1891 (W. H. Allen & Co., Waterloo-place, London); price 1s.—Inebriety and Criminal Responsibility: a Presidential Address; by Norman Kerr, M.D., F.L.S. (H. K. Lewis, London, 1891); price 1s. — Studien uber die Seckrankheit; von Dr. O. Rosenbach (A. Hirschwald, Berlin, 1891). — Oeffentliche Nervenheilanstalten; von Dr. Th. Benda (A. Hirschwald, Berlin, 1891). — Uric Acid in Diseases of the Nervous System; by A. Haig, M.A., M.D. Oxon., F.R.C.P. — County Borough of Salford: Annual Report of the Medical Officer of Health for 1890 (W. F. Jackson & Sons, Salford). — Revue de Chirurgie; Onzième Année, 1891, No. 6, Juin, 1891 (Félix Alcan, Paris). — Revue de Médecine; Onzième Année, 1891, No. 6, Juin, 1891 (F. Alcan, Paris). — Medical Missions; by Dr. A. Neve, Srinagar, Kashmir (printed at the Oxford Mission Printing Works, Calcutta, 1891). — Index Medicus, Authors and Subjects, Vol. XIII., No. 5, May, 1891 (Trübner & Co., and Lewis, London). — Annales des Sciences Psychiques; Première Année, No. 1, Janvier-Février, 1891 (Félix Alcan, Paris). — Separatabdruck aus der Zeitschrift für Biologie; von Dr. A. Jaquet, Basel, 1890.—Pathologie et Traitement des Maladies de la Peau; par le Professeur Moriz Kaposi; Tome I. (G. Masson, Paris, 1891).—Report of the City Hospital, Birmingham, for the year 1890 (G. Jones & Son, Birmingham).—Memoranda of Modern Therapeutics ("Franz Josef" Company, Leadenhall-street, London, 1891).—— Magazines for July: Good Words, Sunday at Home, Leisure Hour, Sunday Magazine (Isbister); Boys' Own Paper, Girls' Own Paper (Religious Tract Society); Scribner's.

Medical Diary for the ensuing Week.

Monday, June 29.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Tuesday, Wednesday, Friday, and Saturday at the same hour.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations daily at 10 A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M.; Thursday, 2.30.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and each day in the week at the same hour.
UNIVERSITY COLLEGE HOSPITAL.—Ear and Throat Department, 9 A.M. Thursday, 9 A.M.
ST. PETER'S HOSPITAL FOR STONE.—4 P.M. Mr. Reginald Harrison: Varicocele.

Tuesday, June 30.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.; Fridays and Saturdays at the same hour.
GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic operations, 4 P.M.; Friday, 2 P.M.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2 P.M.; Saturday, 2 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M. Throat Department, Tuesdays and Fridays, 1.30 P.M. Electrotherapeutics, same day, 2 P.M.

Wednesday, July 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M. Operations by the Obstetric Physicians on Thursdays at 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 3 P.M., and on Thursday and Friday at the same hour.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M. Thursday & Saturday, same hour.
ST. PETER'S HOSPITAL, COVENT-GARDEN.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 1.30 P.M.; Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
CHILDREN'S HOSPITAL, GREAT ORMOND-STREET.—Operations, 9.30 A.M.; Surgical Visits on Wednesday and Saturday at 9.15 A.M.
OBSTETRICAL SOCIETY OF LONDON (20, Hanover-square, W.).—8 P.M. Specimens will be shown by Dr. Lewers, Dr. Herbert Page, Dr Herbert Spencer, and others. Dr. Herman: Five more cases of Puerperal Eclampsia, especially illustrating the Temperature and Urine in that Disease.—Dr. Rutherfoord: Cysts of the Vagina, their Etiology, Pathology, and Treatment. — Dr. John Phillips: The Influence of Purpura Hæmorrhagica upon Menstruation and Pregnancy.

Thursday, July 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Surgical Consultations, Wednesday, 1.30 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Ear and Throat Department, 9 A.M.

Friday, July 3.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
OPHTHALMOLOGICAL SOCIETY OF THE UNITED KINGDOM.—8.30 P.M. Patients and Card Specimens at 8 P.M. Annual General Meeting for the election of officers &c. Mr. Scott (Cairo): Perchloride of Mercury in Conjunctival Disease.—Mr. Jessop: (1) The Consensual Pupillary Reflex in cases exhibiting the Argyll-Robertson Pupil Symptom in one Eye; (2) Two cases of complete Blindness with good Pupillary Light Reflex; (3) On the Symptoms following Section of the Optic Nerve.—Mr. Sym (Edinburgh): Albinism, a curious family history.—Mr. Stephenson: Peculiar form of Retinal Pigmentation.—Mr. Snell (Sheffield): (1) Nystagmus in Compositors; (2) Immediate Loss of Sight after Head Injury.—Mr. Silcock: Epitheliom a (?) of Upper Lid, Cheek, and Lip (living Specimen).

Saturday, July 4.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; and Skin Department, 9.15 A.M.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, June 25th, 1891.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
June 19	30·30	W.	70	63	115	79	62	..	Overcast
,, 20	30·33	N.E.	62	58	120	75	57	..	Cloudy
,, 21	30·31	N.E.	58	55	115	74	53	..	Cloudy
,, 22	30·13	N.E.	64	59	122	78	57	..	Cloudy
,, 23	29·95	N.E.	59	53	102	65	57	·51	Cloudy
,, 24	29·91	E.	65	63	110	75	59	·02	Overcast
,, 25	29·85	S.W.	65	63	90	73	63	·05	Cloudy

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

We cannot undertake to return MSS. not used.

POLLOCK AND BELLAMY MEMORIAL FUND.

WE are requested by Mr. Stanley Boyd to publish the following additional subscriptions received in aid of the above fund.

Miss Bellamy	£1	1	0	Montagu Lubbock, M.D.	£1	1	0
R. Baxter Booth	1	1	0	J. Biddulph Martin ..	5	5	0
James Cantlie, M.D. (Hong-Kong)	1	1	0	Stephen Nockolds	1	1	0
James Donald	1	1	0	Porters (Hospital and School)	1	1	0
Arthur Farr	1	1	0	Alfred Sangster, M.D. ..	1	1	0
H. H. Folker	1	1	0	John W. Taylor	1	1	0
W. H. Folker	1	1	0	C. S. Watkins	1	1	0
Sir W. Guyer Hunter, M.P.	3	0	0	Smaller sums	2	5	0
W. J. Haddock	1	1	0				
T. Lavers	1	0	0		£26	4	0

Bringing the grand total up to £124 11s.

M.B., &c.—The question is a legal one. We think the commission is due, and can be recovered, immediately the appointment is secured; but nothing can be claimed for costs until actual proceedings have been commenced.

Burman should communicate with the Secretary of the London School of Medicine for Women, 30, Handel-street, Brunswick-square, W.C.

"ON CLEANING MICROSCOPE SLIDES AND COVER-GLASSES."

To the Editors of THE LANCET.

SIRS,—The best method is to keep two one-ounce quinine bottles, one filled with rectified spirits of turpentine, and the other with dilute sulphuric acid (B.P.) and trichromate of potash. If a bad preparation is made, put the slide into the bottle of turpentine, which soon dissolves the balsam; the cover-glasses fall to the bottom of the bottle. When the first becomes full they are transferred to the acid solution. To cleanse them, empty the solution into another bottle, and wipe all the glasses with an old pocket handkerchief moistened with methylated spirit. If there is a greasy-looking one, it is washed with a little liquor potassæ B.P.

I am, Sirs, yours faithfully,

Hanley, June, 1891. JOHN SWIFT WALKER.

A CHILD'S IDEA OF INFLUENZA.

WE have no intention to trespass on the preserves of our excellent contemporary, *Mr. Punch*, and we are naturally averse to representing our profession in any but the most favourable light; yet we cannot refrain from placing on record the following:—*Esteemed Family Attendant* (to young patient convalescent from influenza): "Well, my dear, what did you dislike most about the influenza?"—*Ethel* (ætat seven): "The Medicine!"

Mr. T. Lafan.—The suggestion shall receive consideration.

THE COLCHESTER GUARDIANS AND DR. MAYBURY.

THE *East Anglian Times* contains a report of an inquest on the body of Elizabeth Childs, aged fifty-nine, whose death, it had been suggested by one of the guardians, might have been averted by the more prompt attendance of Dr. Maybury, medical officer of the second district, Colchester. It was soon shown that Dr. Maybury had no knowledge of the case being an urgent one. When he arrived he found the patient dead. The coroner and jury soon satisfied themselves that the evidence completely exonerated Dr. Maybury and passed a verdict to this effect, and finding that the patient had died from syncope. The poor woman, suffering from some lung complaint, had got up to dress with a view to going to the workhouse, and fainted. The chief lesson of the case is to critics of guardians to be a little more careful of the reputation of their medical officers, and to have accurate knowledge before condemning them.

Inquirer.—There is nothing illegal, of course, in a medical man attending his own wife in confinement or in other cases. It is very much a matter of taste and feeling, most medical men preferring to have little responsibility in advising those nearest and dearest to them. The answer to the second question is involved in the above answer to the first. There is nothing obviously improper in the conduct of the medical man stated in question 3. B. should be more careful, if reported correctly in "Inquirer's" question, in condemning a brother practitioner. Occasional cases of some kind of fever will arise in the best obstetric practice. They have to be treated antiseptically, and the practitioner has carefully to disinfect himself.

Mr. P. Parker (Bradford).—Yes.

"ASEPTIC HYPODERMIC SYRINGES."

To the Editors of THE LANCET.

SIRS,—With reference to a letter which appears in this week's journal respecting an aseptic hypodermic syringe, Messrs. Burroughs, Wellcome, and Co. have been most unfortunate in the principle selected for the construction of this syringe. First, they infringe our patent for the needle fitting on the glass barrel; secondly, the patent rights of Messrs. Scholler for asbestos plungers to syringes are infringed; and thirdly, the principle of tightening the plunger by screw arrangement was anticipated by us as far back as 1868, and will be found fully described on page 126 of our 1873 catalogue. We receive no royalty from Messrs. Burroughs, Wellcome, and Co., but Messrs. Müller of Berlin (who make these syringes for them) have entered into arrangements to pay us a small royalty for the privilege of introducing these syringes into this country, and we are further informed that this firm pay a royalty to Messrs. Scholler for a similar privilege. The catalogue of Messrs. Windler, referred to in the said letter, we do not possess; but, as it simply relates to Koch's syringe, we maintain that this syringe was unknown in this country until the introduction of Koch's lymph, and therefore Dr. Pearse's suggestion was new to England, for which the patent was granted. We may add that some time ago Dr. Bokenham suggested the use of asbestos, but on explaining to him this was a patent, Dr. Bokenham made experiments with other material, and at last succeeded with wood-pith.—We remain, Sirs, your obedient servants,

June 23rd, 1891. ARNOLD AND SONS.

PARAFFIN LAMPS.

IN reference to a letter on this subject published in our last, *Mr. P. MacEwan* kindly calls our attention to the fact that a blue-book (price 1½*d.*) was published in June, 1890, in which Colonel Majendie gives useful information such as is desired by "M.D. Edin."

INDIAN MEDICAL SERVICE EXAMINATION PAPERS.

To the Editors of THE LANCET.

SIRS,—Your correspondent "Xara" will be able to get the past examination papers of the Indian Medical Service by applying to Messrs. Bilney and Ashdowne, naval and military outfitters, Portsmouth. The natural science is not advanced, and can be read in any elementary text-books.

I am, Sirs, yours faithfully,

Portland, June 22nd, 1891. SURGEON, R.N.

"A WARNING."

To the Editors of THE LANCET.

SIRS,—The young man against whom a warning was published in your columns by myself and others is now in custody. Those who wish to recover their property or proceed in the matter should communicate with Detective-Sergeant W. Williamson, New Scotland Yard, S.W.

I am, Sirs, yours faithfully,

Brook-street, W., June 23rd, 1891. J. B. NIAS.

CLIMATE OF THE WEST INDIES.

To the Editors of THE LANCET.

SIRS,—Can any of your readers give me any information as to the climatology of the West Indies, more especially the Windward Islands, and if suitable for English children?

I am, Sirs, yours truly,

June 23rd, 1891. INTENDING MISSIONARY.

DEATH FROM CHLOROFORM AT SWANSEA.

THE following particulars relating to the recent death under chloroform at the Swansea Hospital have been supplied to us by Mr. T. Campbell Grey, house surgeon to the hospital:—"The chloroform was administered on a Murray's inhaler by the anæsthetist to the hospital, Mr. J. Kynaston Couch. The patient took the anæsthetic well for about five minutes, but then began to struggle and get blue, whereon its administration was stopped for a few minutes. On recommencing the inhalation the patient, after a few inspirations, began to struggle, and more chloroform was put on the inhaler (say twenty drops). Soon after this the patient became quite rigid, the rigidity being succeeded in a few seconds by spasmodic movements of the limbs, lividity of the face, shallow respirations, and failure of the pulse at the wrist. Remedial measures were at once adopted, but were of no avail. The total amount of chloroform used was less than a drachm. Post mortem I found emphysema of the lungs, some slight thickening of the segments of the mitral valve, with commencing atheroma at the base of the aorta and early cirrhotic changes in the liver."

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Auld, Glasgow; Messrs. Arnold and Son, London; Mr. W. Anderson, London; Dr. Avendano, Spain; Dr. Buller, Southampton; Mr. S. Boyd, London; Dr. Bateman, London; Dr. Fletcher Beach; Mr. W. H. Brown, Leeds; Dr. Buckmaster, Simla; Messrs. Barnett and Son, London; Mr. Cardew, London; Mr. Campbell, Belfast; Mrs. F. H. Close; Mr. Cooper, Durham; Dr. Cooke, London; Messrs. Cornish Bros., Birmingham; Mr. Colquhoun, Dunedin; Mr. Damian, Trinidad; Rev. S. Dear; Mr. Day, Bristol; Mr. Davis, London; Mr. A. Duke, Dublin; Mr. C. H. Fowler, London; Messrs. Hopkinson and Co., Nottingham; Dr. Hekimian, Husnumansoor; Messrs. Hertz and Collingwood, London; Mr. T. Holmes, London; Dr. Hutton, Scarborough; Dr. Horrocks, Bradford; Mr. Hayes, Swindon; Mr. Hayes, London; Mr. Hornibrook, London; Mr. Hyde, Buxton; Mr. Hanson, Fareham; Mr. Harratt, Hawkhurst; Dr. Jepson, Durham; Dr. Oscar Jennings, Biarritz; Mr. T. Jones, Manchester; Messrs. Kegan Paul and Co., London; Mr. Kimpton, London; Mr. C. L. Larkin, Liverpool; Mr. Laffan, Cashel; Dr. Leeson, Twickenham; Messrs. Lincoln Bros., London; Dr. Lyon, Houghton-le-Spring; Messrs. Lee and Nightingale, Liverpool; Messrs. Lorenz and Schmidt, Hamburg; Messrs. Lee and Martin, Birmingham; Messrs. Merck and Co., New York; Mr. Mayhew, Ipswich; Dr. McDougall, Carlisle; Mr. G. H. Morley, Birmingham; Sister Musgrave, Surbiton; Messrs. Mawson and Co., Newcastle; Dr. J. M. Moore, Liverpool; Mr. J. Mackenzie, Intake; Dr. Nias, London; Dr. Newman, Paris; Messrs. Nehmer and Co.; Dr. Neve, Kashmir; Dr. J. Oliver, London; Messrs. Phillips Bros., San Francisco; Mr. C. A. Pearson, London; Mr. Prout, Montrose; Mr. J. R. Philpots, Parkstone; Mr. Piggott, Clare; Dr. Ross, Belfast; Mr. Rideal, London; Mr. R. Russell, Haslemere; Dr. W. Squire, London; Mr. Stables, Ashby-de-la-Zouche; Messrs. Sachsse and Co., Leipzig; Mr. Spink, Westminster; Messrs. G. Street and Co., London; Dr. Savage, London; Dr. Sisley, London; Dr. Syers, London; Mr. Stiven, Dundee; Dr. Tate, Nottingham; Mr. Thwaites, Bristol; Herr Thieme, Leipzig; Dr. Wallace, Colchester; Dr. Swift Walker, Hanley; Mr. R. Williams, London; Dr. J. Watson, Portsmouth; Dr. J. Zangger, Switzerland; M.B.; Surgeon R.N.; Surgeon; Delta, London; Secretary, General Hospital, Loughborough; Midland Educational Co., Birmingham; Secretary, General Hospital, Tunbridge Wells; Secretary, General Infirmary, Gloucester; Secretary, Norfolk and Norwich Hospital; Alpha, London; Windsor Royal Dispensary and Infirmary; Physician, London; Trocar, Durham; Ben Rhydding Hydropathic Establishment, Leeds; R. R., Wolverhampton; Intending Missionary; J. R., Leicester; M.R.C.S., Bristol; Jeyes' Sanitary Compounds Co., London; M.D., Finchley-road; Hon. Sec., Horton Infirmary, Banbury; Secretary, Royal Infirmary, Manchester; M. H., Newcastle-on-Tyne.

LETTERS, *each with enclosure*, are also acknowledged from—Dr. Holmes, Southam; Mr. Ryan, Marylebone; Mr. Hartley, Blackpool; Dr. Orr, Godalming; Mr. Lewis, Swansea; Mr. Dybbs, Southgate; Mr. Tully, Hastings; Mr. Lockwood, Huddersfield; Messrs. W. H. Smith and Son, Manchester; Dr. Jennings, Maidenhead; Mr. Williams, Market Drayton; Mr. Town, Halifax; Mr. Fines, Derby; Messrs. Allen and Hanburys, London; Mr. Johnson, Middlesbrough; Mr. Mitchell, Manchester; Dr. Deane, Ellesmere; Mr. Mechan, Boston; Mr. Blount, Paris; Dr. McDonnell, London; Mr. Craig, Wick; Mr. Tyte, Minchinhampton; Mrs. Haggard, Buckingham; Mr. Squire, Essex; Mr. Hall, Beverley; Mr. Barford, Berks; Mr. Dingley, London; Miss Atkinson, Highgate; Dr. Croke, Beverley; Miss Hunter, York; Messrs. Bryce and Rumpff, London; Mr. Swann, co. Monaghan; Messrs. Blondeau et Cie., London; Mr. Roots, Kingston-on-Thames; Rev. Mr. Evans, London; Mr. Burzs, Russell-square; Mr. Hume, London; Rev. E. Stevens, Seaford; Miss Pringle, Notting-hill; Mr. Peters, Jarrow-on-Tyne; Miss Powell, London; Mr. Erskine, Glasgow; Mr. Wagshaw, Salford; Miss Hooper, London; Mr. Sparrow, co. Meath; Mr. Thomas, Caerphilly; Mr. Browne, Coventry; Mr. Powers, Gosforth; Mr. Thin, Edinburgh; Mr. Taynton, Victoria-park; Dr. Roberts, Peckham Rye; Dr. Campbell, London; Mr. Wolff, Hull; Messrs. Riggs and Co., Washington; Mr. Courtney, London; Mr. Edwards, Birmingham; Mr. Horsley, London; Mr. Carter, London; Dr. Hutchinson, Yorks; Mr. Armstrong, Wragby; Mr. Pead, Dulwich; Dr. Angus, Bingley; Mrs. Osborne, Stockport; Mr. Hudson, Sheffield; Mr. Wood, Pontypridd; Mr. Heywood, Manchester; E. C., London; Webster; M.O.H., Liverpool; Veritas, London; Secretary, South Devon and East Cornwall Hospital; B. C., London; L. L., Leeds; Surgeon, South Devon; Bruges, London; Surgeon, Leyton; St. John Ambulance Association, Clerkenwell; Rus, London; Scalpel, London; L. A. D., London; Comus, London; C. B. B., London; Delta, Manchester; A., London; Lady, Northallerton; E. A. C., Tollington-park; Mervin, London; Alpha, Huddersfield; P. W., London; Sigma, Kensington; W. R., London; Carpus, London; Secretary, Cambridge; Beta p., London; Domesticus, London; 83, Wimpole-street; Medicus, Atherstone; Thane, London; A. M. D., London; Atlas, London; Locum Tenens, Brentford; Medicus, London; P. H. J., London; Suburban Surgeon, London; G. P., Clapham; Surgeon, Russell-square; X. Y., London.

NEWSPAPERS.—*Sheffield Daily Telegraph, Le Temps (Paris), Western Mail, Sussex Daily News, North British Daily Mail, Liverpool Mercury, Nottingham Daily Express, Leicester Daily Post, Manchester Guardian, Brewers' Journal, Scotsman, Birmingham Post, Irish Times, Sunday Times, Bread Arrow, Builder, Chemist and Druggist, Spectator, West Middlesex Standard, City Press, Surrey Advertiser, Law Journal, Architect, Saturday Review, South Wales Daily News, West Middlesex Advertiser, Liverpool Daily Post, Mining Journal, Scottish Leader, Pharmaceutical Journal, Leeds Mercury, Yorkshire Post, Local Government Chronicle, Windsor and Eton Gazette, Reading Mercury, Hertfordshire Mercury, Weekly Free Press and Aberdeen Herald, Corriere D'Italia (Rio de Janeiro), Whitehall Review, Windsor and Eton Express, Anglian Times, Citizen, Derbyshire Advertiser, Brisbane Telegraph, New Zealand Herald, Lowestoft News, Perthshire Constitution, Southampton Times, Taunton Courier, Northern Chronicle, Worthing Gazette, Matlock Visitor, Huddersfield Chronicle, South-Eastern Gazette, Berkhampstead Times, Whitby Chronicle, Annandale Observer, Barnes Herald, Penrith Observer, Lynn Advertiser, Swindon Advertiser, &c.,* have been received.

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